THE BUREAU OF ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES' NATIONAL INTEGRATED BALLISTIC INFORMATION NETWORK PROGRAM

U.S. Department of Justice

Office of the Inspector General
Audit Division

Audit Report 05-30

June 2005

THE BUREAU OF ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES' NATIONAL INTEGRATED BALLISTIC INFORMATION NETWORK PROGRAM

EXECUTIVE SUMMARY

Our audit assessed the Bureau of Alcohol, Tobacco, Firearms and Explosives' (ATF) management and implementation of the National Integrated Ballistic Information Network (NIBIN) program. Through the NIBIN program, the ATF deploys Integrated Ballistics Identification System (IBIS) equipment to state and local law enforcement agencies for their use in imaging and comparing crime firearms evidence. The equipment allows firearms examiners and technicians to acquire analog images of the markings made by a firearm on bullets and cartridge casings.[1] The images are then electronically compared to other images in the system and a list of potential matches is generated. A firearms examiner can then look at the original evidence for potential matches to identify "hits," which are successful matches between ballistics images entered into NIBIN.[2] Hits result in a linkage of two different criminal cases.[3] By minimizing the amount of non-matching evidence that firearms examiners must inspect to identify a hit, the NIBIN program enables law enforcement agencies to discover links between crimes more quickly, and also to discover links that would not have been possible to find without the technology. Linking one crime to another can provide law enforcement agencies new leads to help solve the crimes.[4]

We performed the audit to evaluate whether: (1) the NIBIN program has been fully deployed with the capability to compare ballistic images on a national level; (2) controls are adequate to ensure that all bullets and cartridge casings collected at crime scenes and from test-fires of crime

[1] A firearms technician enters the firearms evidence into NIBIN. A firearms examiner performs the detailed review and examination of potential matches identified by NIBIN to confirm actual matches.

[2] The IBIS equipment, which is part of NIBIN, is used to capture and store evidence images in the NIBIN database. When we refer to the entry of evidence into NIBIN, we are referring to the use of the IBIS equipment to enter the evidence.

[3] The ATF publishes a "Hits of the Week" document that provides a synopsis of how NIBIN is successfully used to help solve firearms-related crimes. Appendix XI contains a recent example of the "Hits of the Week" publication.

[4] For information on how NIBIN can be used to link crimes and identify new leads to help solve crimes, see the ATF's recent "Hits of the Week" publication in Appendix XI.

firearms are entered into NIBIN; and (3) ballistic images of bullets and cartridge casings from newly manufactured, imported, or sold firearms are entered into NIBIN, in violation of the Firearm Owners' Protection Act of 1996.

Summary of Audit Results

As of January 2005, the NIBIN program had been deployed to 231 of the 38,717 law enforcement agencies or divisions of law enforcement agencies that had received an Originating Agency Reporting Identifier (ORI) number from the Federal Bureau of Investigation (FBI).[5] Through the 231 agencies with IBIS equipment, a total of 7,653 agencies with ORI numbers had contributed evidence into NIBIN.

Since fiscal year (FY) 2000, $96.3 million was made available to support the NIBIN program, of which $95.1 million was expended as of the end of FY 2004. As of October 22, 2004, the deployed equipment had been used to enter approximately 888,000 records of firearms evidence into NIBIN. However, we found that the program equipment was not deployed to state and local law enforcement agencies that could best utilize it. For example, 71 state and local law enforcement agencies that received the program equipment were entering little evidence into the system. On the other hand, 37 state and local law enforcement agencies that did not receive the program equipment were submitting substantial amounts of evidence for entry into NIBIN to those agencies that received the equipment.

The NIBIN program also is capable of comparing ballistic images on a national level, but users rarely perform national searches because their investigations rarely identify a need. However, we identified seven NIBIN partner agencies that could benefit from additional guidance or training from

[5] Every agency that reports data for inclusion in the FBI's Uniform Crime Reports (UCR) is assigned a unique ORI number by the FBI. For the most part, only police agencies have an ORI number and report crimes, but other agencies such as fire marshals, alcoholic beverage control agencies, regional and special-purpose task forces, federal agencies, and private colleges also have law enforcement responsibilities and are assigned ORI numbers. Some agencies also have separate divisions for reporting purposes and each reporting division has a separate ORI number.

the ATF when performing national searches.[6] For example, the Idaho State Police indicated that it had not performed national searches because of a lack of training.

We also found that the ATF had not maximized the entry of bullets and shell casings from crime scenes into NIBIN. For example:

- Participation in NIBIN among law enforcement agencies was low.

- Although the ATF has taken important steps to promote the NIBIN program by publishing program information on the Internet, addressing law enforcement groups, and conducting regional conferences for NIBIN partner agencies, the ATF needed to better promote the NIBIN program to improve participation.

- Many participating agencies were not entering bullet evidence into the system because the IBIS equipment used to image and compare crime firearms evidence did not produce good quality images of bullets. In addition, most participating agencies that had received the Rapid Brass Identification (RBI) units, which are small remote units used to capture cartridge casing images, were dissatisfied with the units and had either returned them to the ATF or quit using them entirely.

- The potential matches in NIBIN had not been reviewed by one high-volume partner agency since January 2002.

- Many partner agencies we visited had a significant backlog of evidence that had not been entered into NIBIN, primarily because of staffing shortages and other priorities. The backlog consisted of more than 15,200 bullets and cartridge casings. In addition, many of the partner agencies we surveyed also had a significant backlog of evidence not entered into NIBIN. The backlog consisted of about 4,900 collected bullets, 10,800 collected cartridge casings, 10,900 bullets collected from test-fired firearms, 5,300 cartridge casings

[6] Partner agencies are law enforcement agencies that have received the IBIS equipment and entered into a Memorandum of Understanding with the ATF regarding the use of the equipment. At the time of our audit, there were 231 NIBIN partner agencies. Non-partner agencies are other law enforcement agencies that have not received the IBIS equipment. Some non-partner agencies participate in the NIBIN program by submitting firearms evidence to a NIBIN partner agency for entry into NIBIN, while other non-partner agencies do not participate in the NIBIN program.

collected from test-fired firearms, and 9,700 firearms awaiting test-fire.

- More than 4 years after the Attorney General's January 2001 mandate that all firearms evidence seized by Department of Justice law enforcement agencies be entered into NIBIN, the ATF had not implemented a process to ensure all such evidence is entered into NIBIN.[7] An ATF official told us that funding constraints have precluded the ATF from test-firing all federally seized firearms and entering all evidence collected by federal agencies into NIBIN.

Finally, we found that the ATF had established minimal controls to ensure that ballistic images of bullets and cartridge casings from newly manufactured, imported, or sold firearms are not entered into NIBIN in violation of the Firearm Owners' Protection Act of 1996. However, we found no evidence that NIBIN users were entering prohibited data into the system.

A more extensive discussion of each finding and its associated recommendations is contained in the Findings and Recommendations section of this report. The full details of our audit scope and methodology are contained in Appendix I.

NIBIN Program Overview

Every firearm has unique individual characteristics associated with its barrel and firing mechanism. When a firearm is discharged, it transfers these characteristics – in the form of microscopic scratches and dents – to the bullets and cartridge casings fired within it. As the bullet travels through the barrel of the firearm, the barrel leaves marks on the bullet. The firearm's breech mechanism also leaves marks on the ammunition's cartridge casing.

Until the early 1990s, comparisons of bullet and cartridge casing marks were manually performed by firearms examiners using comparison microscopes that could compare two bullets or casings at the same time. This process was very tedious and slow. After the comparison, the firearms examiner made photographs of the images using the comparison microscopes.

With the development of digital cameras, the ballistic imaging process was computerized in the early 1990s. Digital photographs of bullets and

[7] The law enforcement agencies are the ATF, FBI, Drug Enforcement Administration, Federal Bureau of Prisons, and United States Marshals Service.

cartridge casings were scanned into a computer, stored in a database, and analyzed using a software program. All firearms examiners with access to the computerized system could compare the marks on a large number of bullets or cartridge casings. The computerized system was interconnected across many law enforcement agencies through a telecommunications system that permitted the rapid comparison of bullets and cartridge casings used in crimes in one jurisdiction with those used in crimes in another. Linking one crime to another can provide law enforcement agencies with new leads that can help solve these crimes.

Firearms technicians continue to use IBIS equipment to enter digital images of the markings made by a firearm on bullets and cartridge casings and perform comparisons to other bullets and cartridge casings entered into the system. If a "high-confidence" candidate emerges as a possible match, firearms examiners compare the original evidence to confirm a match. In funding and supporting the NIBIN program, the ATF provides state and local law enforcement agencies with an intelligence tool that many could not afford otherwise.

In the early 1990s, both the ATF and the FBI had ballistic imaging systems. The ATF's system was initially called CEASEFIRE, but was later renamed the Integrated Ballistics Imaging System (IBIS). Initially, IBIS compared only markings on bullets. The FBI's system was called DRUGFIRE and initially compared only markings on cartridge cases, but was later expanded to compare markings on bullets. Because the ATF's IBIS system and the FBI's DRUGFIRE system contained different firearms records, some federal, state, and local law enforcement agencies used both systems. However, the two systems were duplicative and inefficient. Ultimately, in 1999 the ATF and the FBI agreed to establish a unified system known as NIBIN by using the: (1) IBIS equipment used by the ATF; and (2) secure, high-speed telecommunications network used by the FBI. In December 1999, the ATF and the FBI entered into a new Memorandum of Understanding (MOU) for joint agency implementation of the NIBIN program.

Deploying NIBIN with Nationwide Search Capabilities

Although the NIBIN program has been fully deployed with the capability to compare ballistic images on a national level, we found that the IBIS equipment has not been deployed to sites that could best utilize it, and the nationwide search capability of NIBIN is rarely used.

Deployment: In June 2000, the ATF established a plan to deploy the IBIS equipment over a 24-month period during FYs 2001 and 2002. We

analyzed the data provided by the ATF for the 231 law enforcement agencies that had received the IBIS equipment and found that the ATF deployed it to 92 percent of the agencies by the end of FY 2002. The IBIS equipment sent to the remaining agencies was completed after FY 2002. According to an ATF official, delay in receiving the appropriation from Congress for FY 2002 was a contributing factor for not completing full deployment. Despite the delays, however, the ATF deployed the IBIS equipment to all agencies for which deployment was planned.

While the IBIS equipment has been fully deployed, we determined that it was not deployed effectively. We analyzed the 888,447 records of firearms evidence entered into NIBIN as of October 22, 2004. We found that 71 partner agencies that received IBIS equipment through the NIBIN program contributed very little evidence to NIBIN. We also found that 37 non-partner agencies that did not receive the IBIS equipment submitted considerable evidence to NIBIN through a partner agency. Our analysis showed that:

- 196 partner agencies entered 888,447 records of firearms data into NIBIN;
- the top 30 (15 percent) partner agencies entered 608,280 (68 percent) records of firearms data;
- 71 (36 percent) partner agencies entered fewer than 1,000 records of firearms data;
- 4 of the 71 partner agencies entered fewer than 100 records of firearms data;
- 37 non-partner agencies submitted a substantial number of firearms data records, ranging from 1,491 to 39,200; and
- 7 of the top 20 contributors of firearms data were non-partner agencies.

The data indicates that the ATF needs to determine whether additional IBIS equipment should be purchased and deployed to high-usage agencies, or whether IBIS equipment should be redistributed from low- to high-usage agencies. According to the former NIBIN Program Director who oversaw deployment of the equipment, the initial focus of the ATF was to deploy the equipment as quickly as possible. The ATF began monitoring the participating partner agencies, but it used a simplistic measurement of the monthly usage of each partner. No in-depth analyses or studies were done

to compare participation of partner agencies to non-partner agencies. The current NIBIN Program Director told us that the ATF is considering redistributing equipment to agencies who can better utilize it.

Search Capability: We found that prior to November 2003, NIBIN could only track and compare ballistic images locally or regionally, not nationally. In November 2003, NIBIN was enhanced to allow nationwide comparisons against all data within the system. According to NIBIN officials, there is no authority or control over how the users elect to search the database to compare nationwide evidence. ATF officials believe that the users are the best judges in conducting searches within the system, because they know best whether the crime evidence collected may be linked to other crimes.

We visited 22 of the 196 partner agencies (11 percent) that contributed evidence into NIBIN and sent survey questionnaires to the remaining 174 partner agencies (89 percent). We asked them how they utilized the NIBIN search features. We found that NIBIN's nationwide search capability was rarely used because the participating agencies believed they rarely needed to perform such searches. Also, the agencies rarely received requests for searches from those agencies that submitted evidence for entry into NIBIN. However, we did identify seven partner agencies (Prince George's County, Maryland Police Department; Omaha, Nebraska Police Department Crime Laboratory; Idaho State Police; Massachusetts State Police – Sturbridge; West Virginia State Police – Charleston; Kansas Bureau of Investigation – Topeka; and the Lake County, Indiana Crime Laboratory) that might benefit in performing nationwide searches with additional guidance, training, or assistance from the ATF. These agencies indicated that they did not perform national searches because of: (1) unfamiliarity with, or lack of training on, how to use the system to perform the searches; or (2) the time, manpower, or difficulty to perform the searches. Therefore, additional guidance, training, or assistance from the ATF could enable these agencies to perform national searches when the need arises.

Entering Ballistic Images into NIBIN

We found that the ATF had not taken steps to maximize the entry of firearms evidence into NIBIN. We determined that: (1) many law enforcement agencies were not participating in the program; (2) the ATF was promoting the program to law enforcement agencies, but not enough to maximize participation; (3) many law enforcement agencies were not maximizing the amount of firearms evidence collected and submitted for entry into NIBIN; (4) a high-volume law enforcement agency was not reviewing high-confidence matches in NIBIN; (5) many law

enforcement agencies were not adequately managing backlogged evidence; and (6) other federal agencies were not maximizing their use of NIBIN. Each of these problem areas are discussed below.

Participating Law Enforcement Agencies**:** Only 7,653 of 38,717 U.S. law enforcement agencies participated in NIBIN as of October 22, 2004. Further, 96 percent of the evidence entered into NIBIN was contributed by only 1,520 of the 7,653 agencies. Data in NIBIN is either collected and entered by a NIBIN partner agency or collected by a non-partner agency and submitted to a partner agency for entry. We reviewed the NIBIN data and determined that participation among partner agencies varied widely. The top 20 percent of partner agencies contributed 75 percent of the evidence to NIBIN. The bottom 55 percent of partner agencies contributed only 9 percent of the evidence to NIBIN. We also compared the amount of data entered into NIBIN to the amount of firearms crimes reported to the FBI. We determined that while the gap between the reported firearms crimes and the evidence entered into NIBIN has narrowed, the potential exists for significant amounts of additional evidence to be entered into NIBIN each year. We also found that some agencies had very high hit rates even though the data they entered was comparatively low. The primary reason given by these agencies for achieving high hit rates was that almost all firearms evidence received was entered into NIBIN.

Promoting the Program: The ATF has taken important steps to promote the NIBIN program among law enforcement agencies by publishing program information on the Internet, addressing law enforcement groups at conferences, and conducting regional conferences for NIBIN partner agencies. To evaluate ATF's effectiveness, we asked officials at 16 partner agencies we visited about the ATF's promotion efforts. We also sent survey questionnaires to 174 partner agencies and 411 participating non-partner agencies that contributed evidence to NIBIN, and 85 non-participating non-partner agencies. We found that:

- 69 percent of the partner agencies visited had mostly positive comments about the ATF's promotion of NIBIN, and 31 percent had mostly negative comments;

- 70 percent of the partner agencies surveyed indicated that the ATF had provided assistance or guidance in promoting the program, while 30 percent indicated that the ATF did not provide such assistance or guidance;

- 21 percent of the partner agencies surveyed indicated that they do not encourage other law enforcement agencies in the area to submit evidence for entry into NIBIN.

- 61 to 79 percent of the participating non-partner agencies surveyed were not aware that the ATF promoted its initiatives through NIBIN publications and pamphlets; presentations and visual aids at law enforcement conferences; and communication with NIBIN users and with ATF local and regional representatives;[8] and

- 64 to 100 percent of the non-participating non-partner agencies surveyed were not aware that the ATF promoted its initiatives through NIBIN publications and pamphlets; presentations and visual aids at law enforcement conferences; and communication with NIBIN users, and with ATF local and regional representatives.

Collecting and Submitting Evidence: Our analysis of the data showed that the more evidence was entered into NIBIN, the greater chance that hits were identified. We found that for the 20 percent of partner agencies that contributed 75 percent of the evidence to NIBIN, these partners also identified 72 percent of the hits. For the bottom 55 percent of partner agencies that contributed only 9 percent of the evidence, these agencies identified only 9 percent of the hits. Consequently, our analysis indicated that agencies are not entering the maximum amount of data into NIBIN to produce favorable results. For example, we found that 72 percent of the evidence in NIBIN was related to cartridge casings and only 28 percent was related to bullets. NIBIN participants told us that the quality of the bullet images produced by NIBIN was not adequate enough to generate hits. As a result, many agencies were not entering bullet evidence or were entering only a small proportion of bullet evidence, compared with cartridge casing evidence.

We also found that most of the agencies that received RBI units to capture cartridge casing images were dissatisfied with the operation of those units. Some of the agencies returned the RBI units to the ATF and other agencies were no longer using them.

[8] For the issue discussed in this and the following bullet, we asked the non-partner agencies to indicate their awareness of each of the ATF initiatives discussed in the bullets. The responses showed that some non-partner agencies were aware of some ATF initiatives but were not aware of others. Therefore, we are reporting the percentage range of non-partner agencies that were not aware of the grouped ATF initiatives.

Comparing Images: Partner agencies who do not review the high-confidence candidates within NIBIN to identify "hits" fail to fully utilize the program's capability.[9] We found that the Georgia Bureau of Investigation – Decatur, a very high-volume NIBIN partner agency, did not examine potential matches identified by NIBIN. At the time of our review, the Georgia agency had not examined any potential matches since January 2002 and had about 3,350 high-confidence candidates that had not been reviewed. An official from the Georgia Bureau of Investigation stated that high-confidence candidates were not being reviewed because: (1) funding for overtime was not available for firearms examiners, and (2) firearms examiners had not had the opportunity to work with the IBIS equipment. The agency official also told us that using the IBIS equipment was considered a duty outside of the firearm examiner's daily laboratory activities.

Backlog of Evidence Awaiting Entry: Delays in entering firearms evidence into NIBIN prevent linking the evidence to other crimes that could help authorities identify new leads and apprehend a criminal. Such apprehensions could prevent additional crimes from being committed. To determine whether participating agencies were entering firearms evidence into NIBIN in a timely manner, we visited 22 NIBIN partner agencies and sent survey questionnaires to the remaining 174 partner agencies that had contributed evidence to the system. We also sent survey questionnaires to 411 participating non-partner agencies. We found that many of the partner agencies we visited had significant backlogs of firearms evidence that had not been entered into NIBIN. For example, one partner agency (the Prince George's County, Maryland, Police Department) had 1,000 or more bullets and cartridge casings, and 269 test-fired bullets, cartridge casings, and firearms that had not been entered into NIBIN.[10] We also found that many of the partner agencies we surveyed had significant backlogs of firearms evidence that had not been entered into NIBIN. The following shows a summary of those partner agencies surveyed that had backlogged evidence.

---

[9] A "hit" is a successful match between ballistics images entered into NIBIN and results in a linkage of two different criminal cases. A "hit" links cases, not individual pieces of evidence. Multiple bullets and cartridge casings may be entered as part of the same case record. In this event, each discovered linkage to an additional case constitutes a "hit." According to this definition, linkages that were derived by investigative leads, hunches, or previously identified laboratory examinations are not "hits." The process for collecting and entering ballistic evidence into NIBIN and comparing and identifying potential matches to confirm "hits" is detailed in Appendix VIII.

[10] An official at this partner agency told us that the backlog of bullets numbered in the thousands. Since an exact number was not known, we used a conservative estimate of 1,000 or more.

Summary of Partner Agency Survey Responses Indicating a Backlog of Evidence Awaiting Entry into NIBIN

Type of Backlog	Number Agencies	Amount Awaiting Entry[11]
Bullets collected	86	4,905
Cartridge cases collected	107	10,796
Bullets from test-fired firearms collected	55	10,911
Cartridge casings from test-fired firearms collected	70	5,289
Firearms awaiting test-fire	119	9,738

Source: Survey Questionnaires from Partner Agencies

The participating non-partner agencies that were surveyed did not have a significant amount of backlogged firearms evidence.

Federal Agencies Using NIBIN: In January 2001, the Secretary of the Treasury and the Attorney General issued memoranda requiring that all law enforcement agencies within those two departments should trace every recovered crime firearm through the ATF's National Tracing Center and enter bullets and cartridge casings found at crime scenes into NIBIN. During our audit, we sent survey questionnaires to the ATF, FBI, Drug Enforcement Administration (DEA), Federal Bureau of Prisons (BOP), and United States Marshals Service (USMS) to ask whether or not they collect firearms evidence. We found that all of the agencies except the BOP collect such evidence. The BOP indicated that it does not collect firearms evidence because this type of enforcement falls within the jurisdiction of the FBI. Four agencies – the ATF, FBI, DEA, and USMS – also indicated that they submit firearms evidence for entry into NIBIN. The DEA said that the only locations it has for participation in the NIBIN program are the Los Angeles, Chicago, and New York division offices. The DEA also explained that it is currently working to revise the guidance given to division offices on the ballistic testing of seized firearms, and that it will be working with the ATF on specific requirements for firearms submissions to the NIBIN program.

We also found that the ATF had established a pilot project in the Los Angeles Gun Center to determine the feasibility and resources for imaging 100 percent of the recovered firearms by federal agencies. During the pilot project, the ATF developed protocols and procedures for test-firing and imaging all firearms recovered in the Southern California area. Protocols were also developed for maintaining and archiving test-fired

[11] This amount of evidence awaiting entry into NIBIN is a conservative estimate because some agencies did not provide numbers and other agencies provided only a range of numbers. In all cases, we used the lower estimate.

evidence and associated documentation, so that the firearms evidence could be destroyed. The NIBIN Program Director told us, however, that funding was not available for the ATF to test-fire all federally seized firearms and enter all firearms evidence collected by federal agencies into NIBIN.

Preventing Unauthorized Data from Being Entered into NIBIN

The Firearms Owners' Protection Act of 1986 prohibits the establishment of any system of registration of firearms, firearms owners, or firearms transactions or dispositions. This provision prohibits directly linking ballistic images through a centralized computer database to both the firearms themselves (a firearms registry) and the identities of the private citizens who possess imaged firearms (firearms owners' registry). Therefore, the IBIS equipment deployed to law enforcement agencies participating in the NIBIN program should not be used to capture or store ballistic images from newly manufactured, imported, or sold firearms, and can not be linked to any systems that contain such ballistic images.

Two states, Maryland and New York, have adopted laws for establishing systems that directly link images of newly manufactured or sold handguns to handgun owners. The Maryland law, enacted in April 2000, required that:

- manufacturers that ship or transport handguns to be sold, rented, or transferred in Maryland must test-fire all handguns shipped into the state after October 1, 2000, and provide a spent cartridge casing to the purchasing firearms dealer; and

- once the handgun is sold, the dealer must forward the cartridge casing to the state police, who must enter its markings in the state's database.

The New York law was enacted in August 2000 and required the ballistic imaging of all handguns shipped into the state after March 1, 2001. The theory behind the entry of newly manufactured or sold handguns is that the markings on a fired bullet or an empty cartridge case found at a crime scene could be compared to markings in the database, thus identifying the handgun used by the criminal.

Both Maryland and New York established database systems to track firearms data on new handguns. The Maryland database is called the Maryland – Integrated Ballistic Identification System (MD-IBIS) and is operated by the Maryland State Police. The New York database is called the

Combined Ballistic Identification System (COBIS) and is operated by the New York State Police.

The ATF required NIBIN users to sign an MOU that prohibits them from entering ballistic images of bullets and cartridge casings from newly manufactured, imported, or sold firearms into NIBIN. During our site visits to 22 NIBIN partner agencies and through our survey questionnaires to the remaining 174 partner agencies that had contributed evidence into NIBIN, we inquired as to whether the agencies entered data from new firearms into NIBIN. None of the partner agencies indicated they did so. Using data from the MD-IBIS and the COBIS databases, we also performed comparisons of the firearms data in the NIBIN database to determine whether any new handguns entered into the two state databases had also been entered into NIBIN. While the comparisons identified a few matches, we determined that the data was entered into NIBIN as a result of a crime and, therefore, did not violate the prohibition against entering new firearms data into NIBIN. We found no evidence that NIBIN users were entering prohibited data into the system.

Recommendations

To improve the operation and success of the NIBIN program, we made 12 recommendations to the ATF. These include recommendations to:

- determine whether to purchase additional equipment for deployment to high-usage non-partner agencies, or to redistribute equipment from low-usage partner agencies to high-usage non-partner agencies;

- research the reasons why some agencies achieved high hit rates with relatively low numbers of cases entered into NIBIN and share the results of such research to the remaining partner agencies for their use;

- establish a plan to better promote NIBIN;

- determine whether new technology exists to improve the image quality of bullets;

- provide guidance to partner agencies on reviewing correlations in a timely manner and on marking the correlations as viewed in NIBIN;

- monitor the non-viewed correlations of partner agencies and take corrective actions when a backlog is identified;

- research ways to eliminate the current backlog of firearms evidence awaiting entry into NIBIN; and

- coordinate with the other Department of Justice law enforcement agencies that seize firearms and firearms evidence to ensure the evidence gets entered into NIBIN.

TABLE OF CONTENTS

INTRODUCTION

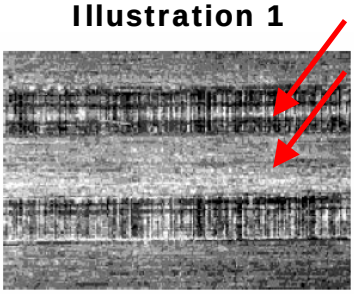
Through its National Integrated Ballistic Information Network (NIBIN) program developed in 1999, the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) deploys Integrated Ballistic Identification System (IBIS) equipment to state and local law enforcement agencies. IBIS equipment creates crime-firearms evidence images that are stored in the NIBIN database and are compared to other evidence images in the database. Matching images identify links to other crimes. By identifying links to other crimes, law enforcement authorities may identify new leads that help solve the crimes. Examples of how NIBIN has been used to link and solve crimes are contained in the ATF's recent "Hits of the Week" publication at Appendix XI.

Ballistic Images

Every firearm has individual characteristics that are as unique to it as fingerprints are to human beings. When a firearm is discharged, it transfers these characteristics — in the form of microscopic scratches and dents — to the projectiles and cartridge casings fired in it. The barrel of the firearm marks the projectile traveling through it, and the firearm's breech mechanism marks the ammunition's cartridge casing. The primary markings that are unique to a given firearm are detailed below.

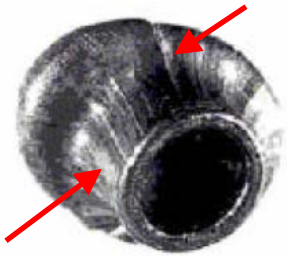
Land and groove markings around the circumference of a bullet: Some markings left on the side of a bullet are incidental to the machining of the interior of the barrel, while other markings, such as grooves, are intended to impart rotation to the bullet when in flight. The red arrows in Illustration 1 point to the land and groove markings on the side of a fired bullet. The red arrows in Illustration 2 point to the groove markings on the outside of a deformed bullet.

Illustration 1



Source: Mitretek Technical Report 2002-CCJT-004[12]

Illustration 2

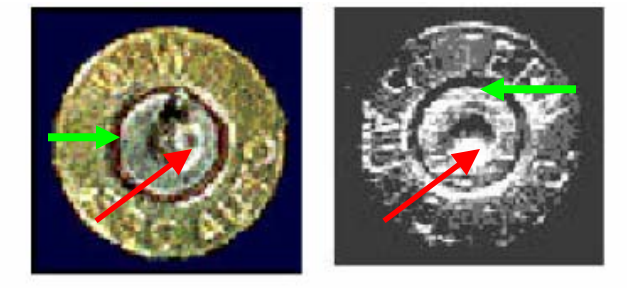


Source: Mitretek Technical Report 2002-CCJT-004

[12] This report is entitled *Ballistic Identification Capability Modeling-A Guide for State Program Establishment* and was prepared under a cooperative agreement with the Department of Justice's Office of Justice Programs, National Institute of Justice.

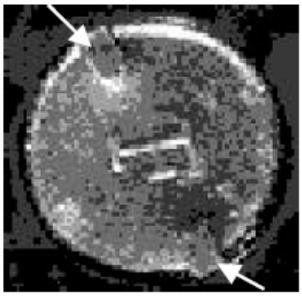
Firing pin impression on the primer face of a shell casing**:** When the firing pin strikes the primer of a cartridge casing, the firing pin leaves a dent in the primer. The two primary types of firing pins are center firing pins (Illustration 3) and rim firing pins (Illustration 4). The red arrows in Illustration 3 point to the firing pin dents left in the primer of fired center firing cartridge casings. The white arrows in Illustration 4 point to the firing pin dents left in the primer of a fired rim firing cartridge casing.

Illustration 3



Source: Mitretek Technical Report 2002-CCJT-004

Illustration 4

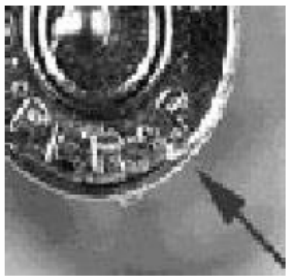


Source: Mitretek Technical Report 2002-CCJT-004

Breech face markings on the primer face of a shell casing: When a firing pin strikes the primer, resulting in an explosion inside the cartridge casing, the bullet is propelled forward out of the barrel of the firearm and the cartridge casing is propelled rearward towards the breech of the firearm. The green arrows in Illustration 3 point to markings incidental to the machining of the breech that were imparted to the primer end of a center firing cartridge casing.

Extractor/ejector markings on the primer end of a shell casing: In the case of a revolver, when a round of ammunition has been fired, the bullet is propelled out of the firearm barrel and the empty cartridge casing remains within the firearm barrel until removed by the firearm user. With semi-automatic or automatic weapons, the cartridge casings are automatically ejected from the firearm. The black arrow in Illustration 5 on the next page points to the markings imparted by the mechanism that extracts the cartridge casing from the firearm.

Illustration 5



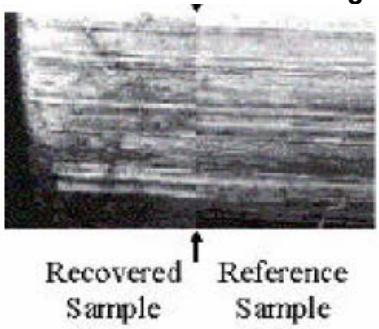
Source: Mitretek Technical Report 2002-CCJT-004

From the 1930s to the early 1990s, firearms examiners compared bullet and cartridge casing marks using comparison microscopes that could compare two bullets or casings at the same time. This was a very tedious process. Afterwards, photographic snapshots of the images from the comparison microscopes could be made and distributed. Generally, the sharing of such results was done locally.

In the early 1990s, the ballistic imaging and matching process was computerized. Digital cameras were used to photograph bullets and cartridge casings. Afterwards, the images were scanned into a computer, stored in a database, and analyzed using a software program. All firearms examiners with access to the computerized system could compare the marks on a large number of bullets or cartridge casings. When the computerized system was interconnected across many law enforcement agencies through a telecommunications system, like NIBIN, it permitted the rapid comparison of bullets and cartridge casings used in crimes in one jurisdiction with those used in crimes in another jurisdiction.

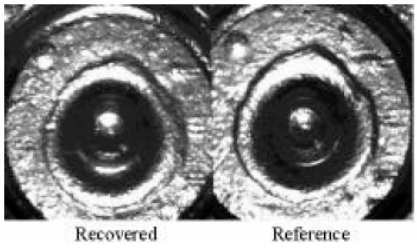
The types of comparisons made by NIBIN of the primary markings on bullets and shell casings with those of reference images are shown below.

Comparison of Bullet Markings – Images of Recovered Bullets Versus a Reference Image



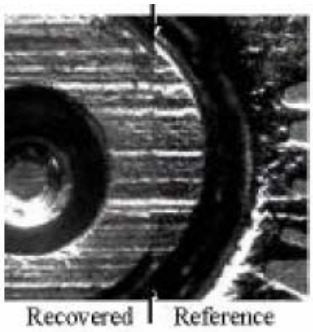
Source: Mitretek Technical Report 2002-CCJT-004

Comparison of Firing Pin Impressions – Images of Recovered Cartridge Casings Versus a Reference Image



Source: Mitretek Technical Report 2002-CCJT-004

Comparison of Breech Face Impressions – Images of Recovered Cartridge Casings Versus a Reference Image



Source: Mitretek Technical Report 2002-CCJT-004

Firearms technicians use the IBIS equipment to enter digital images of the markings made by a firearm on bullets and cartridge casings and perform comparisons to other bullets and cartridge casings entered into the system. If a high-confidence candidate emerges as a possible match, firearms examiners compare the original evidence. By minimizing the amount of non-matching evidence that firearms examiners must inspect to find a confirmable match, the NIBIN program enables law enforcement agencies to discover links between crimes more quickly, including links that would have been lost without the technology. In funding and supporting this program, the ATF provides state and local law enforcement agencies with an intelligence tool that many could not afford on their own.

NIBIN Program Structure

Since FY 2000, $96.3 million has been made available to support the NIBIN program, of which $95.1 million had been expended as of the end of FY 2004.

Prior to NIBIN, the ATF and the FBI had separate systems for imaging and comparing ballistics evidence. To eliminate the redundancy, the agencies began working together in 1997 to consolidate the two systems. As a result, the NIBIN program was established to combine the ATF's and the FBI's ballistic imaging efforts into a single coordinated law enforcement system.[13]

In December 1999, the ATF and the FBI entered into a Memorandum of Understanding (MOU) for joint agency implementation of the NIBIN program. The MOU established the NIBIN Executive Board (Board) and called for the ATF and the FBI to implement the NIBIN program. The responsibilities for each entity are described below.

NIBIN Executive Board: The membership of the Board is made up of a: (1) senior ATF executive, (2) senior FBI executive, and (3) senior executive representing the interest of state and local law enforcement.[14] The Board develops and implements a global NIBIN strategy and establishes program policy regarding external relationships. In addition, the Board provides guidance to the ATF, the FBI, and partner agencies regarding automated ballistics imaging and related networking.[15] The Board also convenes and oversees a working group to provide expert technical advice.[16]

ATF: The ATF has overall responsibility for the entire NIBIN program, including:

- hardware and software development,
- deployment and installation of the IBIS equipment,

[13] For a history of the NIBIN program, see Appendix II.

[14] At the time of the audit, the state and local law enforcement representative on the NIBIN Executive Board was the Deputy Commissioner of the Boston Police Department.

[15] Partner agencies are law enforcement agencies that have received the IBIS equipment and entered into an MOU with the ATF regarding the use of the equipment. At the time of our audit, there were 231 NIBIN partner agencies. Non-partner agencies are other law enforcement agencies that have not received the IBIS equipment. Some non-partner agencies participate in the NIBIN program by submitting firearms evidence to a NIBIN partner agency for entry into NIBIN, while other non-partner agencies do not participate in the NIBIN program.

[16] The technical working group consists of seven members. Both the ATF and the FBI select three members each and the Board selects the remaining member. The technical working group provides advice and recommendations to the Board on technical matters, addresses issues of current interest in the forensic firearms area, and responds to tasks directed by the Board.

- training,
- security,
- maintenance,
- user protocols and support, and
- quality control of the NIBIN program.

FBI: Until October 2003, the FBI was responsible for the establishment, maintenance, and funding of the high-speed integrated, nationwide network that connected the NIBIN program equipment. In addition, the FBI was responsible for generating and disseminating statistical and activity reports regarding the network communication system. In October 2003, after realizing that having two agencies responsible for different aspects of the same national program was an ineffective management arrangement, the FBI relinquished its network responsibilities and authority to the ATF. The FBI's role in NIBIN, other than that of a participating partner under the NIBIN program, ceased. Consequently, the ATF became solely responsible for all aspects of the NIBIN program.

Participating State and Local Law Enforcement Agencies

State and local law enforcement agencies participate in the NIBIN program based on an MOU with the ATF. The MOU establishes and defines a partnership that will result in the installation, operation, and administration of the IBIS equipment for the collection, analysis, and dissemination of firearms data. The agencies that sign the MOU and receive the IBIS equipment are referred to as partner agencies. The MOU must be executed before the ATF can deploy any IBIS equipment into a state or local laboratory. The ATF purchases IBIS equipment for deployment to the partner agencies, provides upgrades and service for the equipment, and administers the network over which the equipment communicates. The ATF also provides a week-long training course for new users of the system. The NIBIN partner agencies agree to: (1) support the program with adequate staffing and resources, (2) enter as much crime firearms evidence as possible into their IBIS systems, (3) share evidence and intelligence information with other law enforcement agencies, and (4) abide by the ATF regulations for use of NIBIN.[17]

[17] More details regarding the MOU between the ATF and each NIBIN partner agency are contained in Appendix III.

Participating Federal Agencies

The FBI's lab, located in Quantico, Virginia, is the only federal agency other than the ATF that has the IBIS equipment. In January 2001, the Attorney General and Secretary of the Treasury issued memoranda directing that all law enforcement agencies within those departments should enter bullets and cartridge casings found at crime scenes into NIBIN (See Appendix X). Until March 2003, the ATF was part of the Department of the Treasury. With the passage of the Homeland Security Act of 2002, the ATF's regulatory and revenue collecting functions relating to alcohol and tobacco were realigned within the newly created Alcohol and Tobacco Tax and Trade Bureau of the Department of the Treasury. The ATF was transferred as a bureau to the Department of Justice.

The ATF has encouraged other federal agencies to participate in the NIBIN program through one of the partner agencies or through one of the ATF servers in laboratories located in Ammendale, Maryland; Atlanta, Georgia; and Walnut Creek, California.

To help ensure the ATF and other federal agencies complied with the mandate of the Attorney General and the Secretary of the Treasury, the ATF initially developed two options for getting federally held agency firearms evidence entered into NIBIN. The first option asked the NIBIN partner agencies to accept federally seized firearms from their local area ATF offices for test-fire and entry into NIBIN. However, the ATF did not consider this a good option because of the funding and resources needed to obtain the ammunition to test-fire the firearms seized. The second option provided that all federal firearms evidence be taken into ATF custody, shipped to one of the three ATF laboratories, and entered into NIBIN. This option also had drawbacks, such as manpower shortages at the ATF laboratories.

To overcome the drawbacks associated with the two options, the ATF developed a pilot program that placed IBIS equipment for at least one year in the ATF's newly formed Southern California Regional Crime Gun Center, known as the Los Angeles Gun Center (Gun Center). The pilot project required the ATF to hire an IBIS technician on a contract basis to work at the Gun Center and enter images of the ATF's recovered firearms evidence, as well as images of federal firearms evidence recovered by other agencies in the Southern California area.

As part of the pilot program, the ATF and its NIBIN contractor (Forensic Technology, Inc.) developed protocols and procedures for test-firing and imaging all firearms recovered in the Southern California area. Protocols were also developed for maintaining and archiving test-fired

evidence and associated documentation, so that the firearms evidence could be destroyed.

The overall purposes of the pilot program were to: (1) ensure ATF's lead as "the firearms agency"; (2) maintain self-reliance and control of the ATF's NIBIN program as it pertained to federally seized firearms; (3) develop a realistic policy regarding the Treasury mandate and ensure that it was implemented and adhered to; (4) determine the feasibility and resources for imaging 100 percent of the recovered firearms by federal agencies; (5) develop protocols and procedures on a pilot scale to implement the policy; (6) ensure that all federally recovered firearms were traced through the National Tracing Center;[18] (7) have technical representatives interact with the users on a local level; and (8) dispatch the technical representatives to a local laboratory to assist with any backlog of NIBIN entries.

For details about the Department of Justice law enforcement agencies' compliance with the Attorney General's January 2001 mandate, see Finding 2 in the Findings and Recommendations section of this report.

The NIBIN Network

The NIBIN program network operates with regional servers in each of the three ATF laboratories. The NIBIN servers provide service to 12 geographical regions as shown in Appendix VI. As shown in Appendix VII, within each server each geographical region is divided into partitions where the firearms data from the NIBIN partner agencies is stored. The NIBIN partner agencies are assigned to regions and partitions for the purpose of performing searches and comparing firearms evidence within a particular partition in its respective region.

Regional Server: The regional server is the central data repository for the region where all images are stored and electronic comparisons are made of bullet and cartridge casing images to identify potential matches. The cost of each regional server is about $209,700. As of January 28, 2005, the NIBIN program had 14 servers, including 2 test servers (5 servers and 1 test server at the ATF's Ammendale, Maryland Laboratory, 4 servers at the ATF's Walnut Creek, California Laboratory, 3 servers at the ATF's Atlanta, Georgia Laboratory, and 1 test server at the ATF's contractor site in Largo, Florida). A photograph of a NIBIN server is shown on the next page.

[18] The ATF established the National Tracing Center and gave it responsibility for tracing firearms used in crimes and recovered at crime scenes.

NIBIN Server

Source: Forensic Technology, Inc.

Remote Data Acquisition Station (RDAS): Linked via a local area network (LAN) to a regional server, each RDAS enables users to acquire images of bullet and cartridge casings evidence through the use of an automated microscope and a digital imaging computer. The images collected by the RDAS are given a unique "digital signature" and sent to the regional server for comparison and storage. The regional server electronically compares the digital signatures and ranks them according to their degree of similarity. Comparison results are then sent back to the RDAS where they are viewed by the local firearms technician and examiner. The cost of a complete RDAS setup is about $250,400. As of January 28, 2005, the NIBIN program had 216 RDAS units. A photograph of a NIBIN RDAS unit is shown below.

NIBIN RDAS Unit

Source: Forensic Technology, Inc.

Rapid Brass Identification (RBI): The RBI is a totally portable cartridge casing system that permits the on-site imaging of fired cartridge casings. An RBI unit transmits the acquired images through an RDAS unit

for processing and comparison by the regional server. Afterwards, the results are transmitted back through the RDAS unit to the RBI unit. The cost of an RBI unit is about $35,500. As of January 28, 2005, the NIBIN program had 31 RBI units. A photograph of a NIBIN RBI unit is shown below.

NIBIN RBI Unit

Source: ATF

Matchpoint: A Matchpoint unit consists of proprietary software and a desktop computer that are connected via a LAN or an RDAS unit to the regional server. A Matchpoint is compatible with the IBIS equipment and acts as an additional workspace for analyzing images. With a Matchpoint, ballistics analysis can be conducted from various locations using a LAN. The cost of a Matchpoint unit is about $32,500. As of January 28, 2005, the NIBIN program had 68 Matchpoint units. A photograph of a NIBIN Matchpoint unit is shown below.

NIBIN Matchpoint Unit

Source: Forensic Technology, Inc.

As of January 28, 2005, the IBIS equipment had been deployed to 231 sites under the NIBIN program. Appendix IV contains a list of the 231 sites, along with the type of equipment deployed to each site. The process used

by the ATF to identify the sites where the IBIS equipment was deployed is described in Appendix V.

As of October 22, 2004, 888,447 records of firearms data had been collected and entered into the NIBIN program by 196 partner agencies, including the ATF and FBI.[19] As of that date, the NIBIN program had also generated a total of 10,622 "hits."[20]

Monitoring Participating Partner Agencies

The ATF monitors the usage of the IBIS equipment deployed to the NIBIN partner agencies by compiling a monthly acquisition report and a quarterly watch list.[21] Each month, the ATF accesses each RDAS unit to determine the number of bullets and cartridge casings that have been entered at each site. The ATF reviews the data to determine whether the partners are actively using the IBIS equipment. At the end of each quarter, statistical data on entries is reviewed and compiled into the watch list by ATF staff showing low-usage sites.

After the first three-month period of low-usage, the ATF sends a "Notice of Insufficient Usage" letter to the partner agency's head and laboratory director. The letter advises the partner agency to contact the ATF to discuss ways to increase usage of the IBIS equipment. If the usage levels remain low during the three months after the first "Notice of Insufficient

[19] Although the 196 partner agencies included the New York City Police Department (NYPD), the NYPD was not an official partner agency at the time of our audit. The NYPD had not signed the MOU with the ATF, although the two agencies were in negotiation to connect the NYPD to NIBIN. According to the ATF's NIBIN contractor, the NYPD's ballistic evidence is maintained in NIBIN, but the evidence is not automatically searchable by other NIBIN partner agencies. If other partner agencies have a need to search the NYPD data, the agencies submit a justification to the ATF and the ATF, along with the NYPD, will consider the request on a case-by-case basis.

[20] A "hit" is a successful match between ballistics images entered into NIBIN and results in a linkage of two different criminal cases. A "hit" links cases, not individual pieces of evidence. Multiple bullets and cartridge casings may be entered as part of the same case record. In this event, each discovered linkage to an additional case constitutes a "hit." According to this definition, linkages that were derived by investigative leads, hunches, or previously identified laboratory examinations, are not "hits." The process for collecting and entering ballistic evidence into NIBIN, and comparing and identifying potential matches to confirm "hits" is detailed in Appendix VIII.

[21] The monthly acquisition report contains details of the number of bullets and cartridge casing entries that have been made, and the number of "hits" that have resulted from such entries for each RDAS unit site. The activity of the RBI units is rolled into the usage data for the RDAS unit where the RBI data is submitted. The watch list shows RDAS units with low-usage during a given reporting period.

Usage" letter, the ATF arranges a visit to the partner agency to discuss program participation and equipment usage. If usage is still low during the three months after the site visit and the agency's plan is not adequate to resolve the problem, the ATF removes the IBIS equipment for use at other locations. Our concerns about the ATF's monitoring of NIBIN users to maximize participation in the program are discussed in detail in Findings 1 and 2 in the Findings and Recommendations section of this report.

Prohibition Against Entering New Firearms Data Into NIBIN

The Firearms Owners' Protection Act of 1986 prohibits the establishment of any system of registration of firearms, firearms owners, or firearms transactions or dispositions. This provision prohibits federal agencies from directly linking ballistic images through a centralized computer database to both the firearms themselves (a firearms registry) and the identities of the private citizens who possess imaged firearms (firearms owners' registry). Therefore, the IBIS equipment deployed to law enforcement agencies participating in the NIBIN program cannot be used to capture or store such ballistic images.

In April 2000, the State of Maryland adopted the first ballistic imaging law requiring the establishment of state ballistic imaging systems that directly link the images of newly manufactured or sold handguns to handgun owners. The law required that:

- manufacturers that ship or transport handguns to be sold, rented, or transferred in Maryland must test-fire all handguns shipped into the state after October 1, 2000, and provide a spent cartridge casing to the purchasing firearms dealer; and

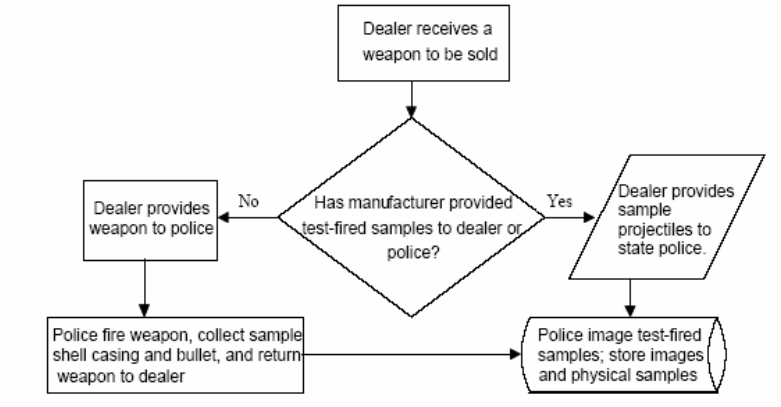
- once the handgun is sold, the dealer must forward the cartridge casing to the state police, who must enter its markings in the state's database.

In August 2000, the State of New York enacted a similar law requiring the ballistic imaging of all handguns shipped into the state after March 1, 2001.

The theory behind the entry of newly manufactured or sold handguns is that the markings on a fired bullet or an empty cartridge casing found at a crime scene could be compared to markings in the database, thus identifying the handgun used by the criminal.

The following flowchart illustrates the process of how newly manufactured or sold handguns are processed for entry into the state ballistic imaging systems.

Process for Entering Ballistic Data from Newly Manufactured Firearms into a State IBIS System



Source: Mitretek Technical Report 2002-CCJT-004

However, in a September 2004 report, the Maryland State Police (MSP) questioned the cost effectiveness of imaging new handguns into the Maryland IBIS (MD-IBIS) and New York Combined Ballistic Information System (COBIS) state systems. The MSP's Forensic Sciences Division determined that the Maryland MD-IBIS system had not identified any hits even though the system had been in operation for four years at a cumulative cost of almost $2.6 million. The report also stated that the New York COBIS system had not identified any hits even though almost 80,000 cartridge case profiles had been entered into the system and the system's annual cost was about $4 million. In the report, the MSP's Forensic Science Division recommended the MD-IBIS program be suspended. This report is discussed in further details in the Prior Audits and Evaluations section of this Introduction.

The Future of the NIBIN Program

The ATF has not made any plans to deploy IBIS equipment to additional agencies beyond the 231 agencies that already have received it. Agencies that are interested in receiving the IBIS equipment can submit a request and justification to the ATF and the ATF will consider each request on a case-by-case basis. The ATF has plans to perform annual upgrades of the IBIS software based on feedback from the users. Within the ATF, there

are also plans to link NIBIN with N-Force and the National Tracing Center.[22] Further, the ATF plans to work on improving the safeguards and controls within NIBIN to prevent unlawful security breaches into the system.

The potential exists for linking NIBIN with other ATF operations, such as the ATF's regional gun centers, which serve as a clearinghouse for firearms information. The centers gather regional crime data and firearms tracing results and use analytical technology such as crime mapping and crime analysis to develop detailed information about trends in firearms-related crimes. This information helps to create investigative leads and assists federal, state, and local law enforcement in deploying resources where they are needed most.

The ATF is also conducting a pilot program called "COPS and DOCS," which joins together health care and law enforcement professionals who recover firearms evidence and enter it into NIBIN. Depending on the program's results, the COPS and DOCS program may be expanded. The COPS and DOCS program has been implemented at two hospitals in Atlanta, Georgia (Grady Memorial Hospital and DeKalb Medical Center). When gunshot victims are brought into the hospital, bullets from wounds are packaged with identifying information and placed in an evidence box that is located in the hospital's operating room. The bullets are retrieved each week by an ATF agent and taken to the ATF crime laboratory for entry into NIBIN.

Prior Audits and Evaluations

In September 1996, the General Accounting Office (GAO) found that five systems and one subsystem contained data that readily identified retail purchasers or possessors of specific firearms.[23] The GAO reviewed two ATF systems and found that both systems complied with the data restrictions for recording or transferring firearms licensee records to a government facility or establishing a registry of firearms, firearms owners, or firearms transactions or dispositions. The GAO report noted that neither system violated the appropriation rider that prohibited consolidating or centralizing licensee records. The GAO also found the ATF had not systematically

[22] N-Force is a case management system that is available to ATF staff. The ATF established the National Tracing Center and gave it responsibility for tracing firearms used in crimes and recovered at crime scenes.

[23] General Accounting Office, *ATF Compliance with Firearms Licensee Data Restrictions*, GAO/GGD 96-174, September 1996. On July 7, 2004, the GAO was renamed the Government Accountability Office.

analyzed its data systems and information practices to affect the appropriation rider.

In March 1998, the Department of the Treasury Office of the Inspector General (OIG) reviewed the ATF's IBIS system and found several management control weaknesses that needed: (1) guidance and procedures to clarify the ownership of IBIS databases, establish minimum usage criteria, and track direct and indirect program costs; (2) contingency planning for the possible reduction of future program funding; and (3) the development of results-oriented measures to assess program performance. The report also noted that these control weaknesses resulted in an incompatible, competing FBI system, and contracting procedures that allowed the IBIS contractor to imply a Treasury Department and ATF product endorsement through the contractor's Internet advertisements.[24] These conditions occurred because the ATF initially concentrated on placing IBIS systems throughout the country without first establishing focused controls and making comprehensive plans for managing use of the system.

In July 2001, the Congressional Research Service provided the 107th Congress with a brief history of how NIBIN evolved and operated.[25] The report also addressed the expansion of NIBIN to cover new firearms purchases. Congress subsequently introduced bills requiring all newly manufactured and imported handguns to be ballistically imaged.

In October 2001, the California Department of Justice conducted a study indicating that automated computer matching systems do not provide conclusive results.[26] Among other things, the study stated that: (1) current systems may not be as efficient for rim-fire firearms and are limited to auto-loading weapons; (2) all potential "hits" must be confirmed by a firearms examiner; (3) firearms that generate markings on cartridge casings can change with use and be altered by the user; (4) cartridge casings from different manufacturers of ammunition may be marked differently by a single firearm that may not correlate favorably; and (5) not all firearms generate markings on cartridge casings that can be identified back to the firearm.

---

[24] Bureau of Alcohol, Tobacco and Firearms (ATF), *Bureau of Alcohol, Tobacco, and Firearms (BATF) Integrated Ballistic Identification System*, 98-069, March 1998.

[25] Congressional Research Service, *Report for Congress, National Integrated Ballistics Information Network (NIBIN) for Law Enforcement*, July 2001.

[26] California Department of Justice, *Technical Evaluation: Feasibility of a Ballistic Imaging Database for All New Handgun Sales*, October 2001.

In May 2002, in response to the October 2001 California Department of Justice's report, the ATF issued its own report describing the use of the IBIS equipment for the NIBIN program and discussing the technical issues raised in the California report relative to the crime firearm system deployed by the ATF.[27] In response to the issues raised in the California report, the ATF stated that the IBIS equipment cannot solve crimes by perfectly producing definitive matches of evidence. Further, the ATF noted that there is no substitute for human expertise and initiative by firearms examiners who confirm matches by examining the original evidence. The report stated in conclusion that no investigative tool is perfect or will be effective in every situation, but the fact that NIBIN can search a case file with thousands of exhibits in minutes provides an invaluable opportunity to law enforcement agencies that participate in the NIBIN program.

In January 2003, the California Department of Justice completed a study that evaluated ballistic identification systems and determined the feasibility of utilizing a statewide system of firearms data from test-fired and sold firearms.[28] The study identified issues that needed resolution before a system could be implemented in the State of California. Those issues included: (1) further refinement and maturing of the technology, (2) using emerging technologies as an alternate to the state system that may provide a simpler and more economical means of matching a firearm to cartridge cases found at crime scenes, and (3) the need for the federal government to get involved because of the financial and structural resources that will ensure a comprehensive database.

In a September 2004 report, the MSP Forensic Sciences Division addressed the continuing problems of the MD-IBIS system, including the inability of the MD-IBIS to provide hits and to enhance or expedite crime investigations.[29] The program had been in existence four years at a cumulative cost of $2,567,633. The report also identified concerns regarding the integrity of the databases. Test-fires were supposed to be included with a firearm when it was shipped from the manufacturer, but in at least one instance it was determined that a firearms dealer was actually doing the test-fires and submitting the results to MD-IBIS. The report recommended that the program be suspended, that a repeal of the collection of cartridge cases from current law be enacted, and that the laboratory

---

[27] Bureau of Alcohol, Tobacco and Firearms (ATF), *Ballistic Imaging and Comparison of Crime Gun Evidence*, May 2002.

[28] California Department of Justice, *Feasibility of a California Ballistic Identification System, January 2003*.

[29] Maryland State Police, Forensic Sciences Division, *MD-IBIS Progress Report*, September 2004.

technicians associated with the program be transferred to another unit. As of our audit, the Maryland program had not been suspended.

FINDINGS AND RECOMMENDATIONS

1. NIBIN CAPABILITY TO COMPARE BALLISTIC IMAGES ON A NATIONAL LEVEL

We determined that the ATF completed deployment of the IBIS equipment during FY 2003 to all 231 sites contained in its deployment plan. However, some of the equipment was not sent to agencies that could best utilize it. Our analyses found that 37 agencies that did not receive IBIS equipment had submitted more firearms data for entry into NIBIN than some agencies that received the IBIS equipment. This analysis indicates a need for the ATF to determine whether additional IBIS equipment should be purchased and deployed to these high-usage agencies, or whether IBIS equipment should be redistributed from low- to high-usage agencies. We also determined that NIBIN is capable of comparing ballistic images on a national level and that most NIBIN users are aware of this capability. We identified seven agencies that could benefit when performing nationwide searches with additional guidance, training, or assistance from the ATF.

Deploying IBIS Equipment

To evaluate the ATF's deployment of IBIS equipment to participating law enforcement agencies, we: (1) interviewed NIBIN program officials at the ATF, (2) obtained and reviewed the ATF's deployment plan for NIBIN, (3) reviewed the methodology used by the ATF to select participants for the program, (4) compared the current status of deployment to the deployment schedule, and (5) obtained and analyzed firearms data entered into NIBIN for both partner agencies and non-partner agencies.

In a June 7, 2000, memorandum, the NIBIN Executive Board established a deployment plan with a tentative 24-month schedule for delivering the IBIS equipment during FYs 2001 and 2002. NIBIN sites were selected to receive equipment based on such factors as population, rate of violent crime, and demonstration of commitment to ballistic technology through the past use of IBIS or DRUGFIRE equipment. Through this preliminary deployment plan, site surveys were conducted at each agency scheduled to receive equipment to ensure that the type of equipment sent matched the needs and capabilities of the receiving agency. The ATF's NIBIN contractor conducted site visits and met with upper management from the partner agencies. The contractor used a site survey to obtain information to deliver and install the IBIS equipment. The contractor also

discussed the responsibilities of each agency and provided a copy of the MOU that was to be executed between the ATF and each partner agency. The contractor also provided each partner agency with the technical requirements that the facility needed to meet before the IBIS equipment could be provided. The contractor coordinated with local ATF personnel and each partner agency's staff on the details of deploying the equipment and coordinating the necessary training. Finally, NIBIN officials told us that they committed to placing at least one site in each state to ensure nationwide coverage.

We determined that much of the equipment was delivered before the deployment plan, methodology, and budget were established. Specifically, according to the ATF, the IBIS equipment was sent to 65 of the 231 NIBIN sites before FY 2001.[30] Candidates were evaluated on a case-by-case basis and, as funding became available, the equipment was delivered.

In addition, the IBIS equipment was sent to 19 of the 231 NIBIN sites after FY 2002. An ATF official explained that most of the equipment was sent prior to development of the deployment plan because the ATF's focus was on moving the equipment as quickly as possible. The official attributed the delay in completing full deployment by the end of FY 2002 to: (1) delays in receiving the congressional appropriation for FY 2002, (2) problems during equipment installation, and (3) the transition of the FBI's responsibilities for the network to the ATF. Despite the delays, to date the ATF has deployed the IBIS equipment to all agencies for which delivery was planned.

While the IBIS equipment has been fully deployed, we determined that it was not sent to agencies that could best utilize it. We obtained a copy of the NIBIN database as of October 22, 2004, and found that 196 partner agencies had entered 888,447 pieces of firearms data into the system.[31] We also determined that at least 7,653 law enforcement agencies that had received Originating Agency Reporting Identifier (ORI) numbers from the FBI

[30] According to the ATF, full deployment of the IBIS equipment was completed in May 2003, at which time it had been sent to 227 NIBIN partner agencies. Subsequent to May 2003, IBIS equipment was delivered to 13 additional agencies that requested it and taken back from 9 sites that no longer needed it. Therefore, as of January 2005, the IBIS equipment was in use at 231 NIBIN partner agencies.

[31] The remaining partner agencies received only RBI units that submit data through an RDAS unit. The NIBIN tracks data by RDAS and not by RBI.

contributed the 888,447 data items.[32] We analyzed the entries and found that many of the partner agencies that received the IBIS equipment had entered only minimal firearms data into NIBIN, whereas some non-partner agencies that did not receive the IBIS equipment had submitted much more firearms data for entry into the system. Our analysis showed that:

- 196 partner agencies had entered 888,447 records of firearms data into NIBIN;
- the top 30 (15 percent) partner agencies entered 608,280 (68 percent) records of firearms data;
- 71 (36 percent) partner agencies entered fewer than 1,000 total records of firearms data, and 4 of those 71 partner agencies entered fewer than 100 total records of firearms data;
- 37 non-partner agencies submitted a substantial number of firearms records, ranging from 1,491 to 39,200; and
- 7 of the top 20 contributors of data were non-partner agencies.

As the data indicates, some partner agencies that received IBIS equipment contributed very little evidence to NIBIN. Conversely, some non-partner agencies that did not have the IBIS equipment submitted considerable evidence through a partner agency. Accordingly, the ATF needs to determine whether additional IBIS equipment should be purchased and deployed to these high-usage agencies, or whether IBIS equipment should be redistributed from low-usage agencies to high-usage agencies. The NIBIN Program Director told us that the ATF's initial focus was to deploy the equipment as quickly as possible and that not enough attention was directed towards ensuring the equipment was sent to sites that could best utilize it. Around 1999, the ATF began monitoring the partner agencies, but it was a simplistic measurement of the monthly usage of each partner. The NIBIN Program Director told us that no in-depth analyses or studies were done to compare participation of partner agencies to non-partner agencies. The official also stated that the ATF is considering redistributing equipment

[32] Every agency that reports data for inclusion in the FBI's Uniform Crime Reports (UCR) is assigned a unique ORI number by the FBI. For the most part, only police agencies have an ORI and report crimes, but other agencies such as fire marshals, alcoholic beverage control agencies, regional and special-purpose task forces, federal agencies, and private colleges also have law enforcement responsibilities and are assigned ORI numbers. Some agencies also have separate divisions for reporting purposes and each reporting division has a separate ORI number. We could not match the data entered to the ORI numbers contributing the data for 115,092 of the 888,447 data items entered because the ORI numbers were not entered into the system.

from low-usage agencies to high-usage agencies because they can better utilize the equipment.

Comparing Images

We interviewed ATF officials to see if IBIS was capable of performing nationwide comparisons of ballistic images associated with crime firearms. Nationwide comparisons can help law enforcement officials link crimes across jurisdictions when the same firearm is used to commit crimes in multiple jurisdictions. We also visited 22 of the 196 NIBIN partner agencies that contributed evidence to NIBIN as of October 22, 2004, and sent survey questionnaires to the remaining 174 partner agencies that contributed evidence to NIBIN to understand how each uses the nationwide comparison.

We determined that prior to November 2003, NIBIN tracked and compared ballistic images either locally or regionally. The NIBIN system is made up of servers located in Ammendale, MD; Atlanta, GA; and Walnut Creek, CA, connected to the 12 NIBIN regions as shown in Appendix VI. Most of the regions are further divided into sub-regions covering NIBIN partner agencies within the same region as shown in Appendix VII. For example, the Walnut Creek, CA, server is connected to four regions, one of which is Region 1a for Southern California. The Southern California region is partitioned into 3 sections covering the southern, central, and northern sections of Region 1a. The southern partition serves 2 partner agencies; the northern partition serves 3 partner agencies; and the central partition serves 10 partner agencies.

NIBIN automatically performs a local search as data is entered into the system. A local search is one where the data is compared against other data in the same partition within the region. For example, in Region 1a when a partner agency in the southern partition enters evidence into NIBIN, the evidence is automatically compared against other evidence entered by that partner agency as well as evidence entered by the other partner agency within the southern region partition of Region 1a.

Before November 2003, a regional search could also be performed by the agency entering the data, but the search was not automatic and had to be manually selected. The agency performing the search could select the entire region, or could select which agencies within the region to include and not include in the search. Nationwide searches were not possible.

In November 2003, NIBIN was enhanced to allow nationwide searches against all data in the system. The nationwide search is similar to the regional search, except that the search must be made against one server at a time, and the searching agency must first select which server to search

against. The server then can choose to search against either all regions and agencies, or specific regions or agencies within the server.

According to NIBIN officials, the ATF delegates to users the authority and control over how to search the database to compare nationwide firearms evidence. Officials believe that the users are the best judges in conducting searches within the system because they know best whether the crime evidence collected might be linked to other crimes. Further, the users are more familiar with the cases and crimes in their respective areas. Officials added that, with a handful of exceptions, almost all firearms crimes occur in the vicinity where the firearms are found. Generally, users make nationwide database searches only on high-profile cases that are either national in nature or where the user has specific leads in the case.

Through site visits to 22 NIBIN partner agencies and survey questionnaires sent to the remaining 174 NIBIN partners that received RDAS equipment, we asked each agency how it performs searches. We found that the nationwide search capability was rarely used because the participating agencies rarely had a need to perform such searches or rarely received requests for such searches from agencies that submitted evidence to them for entry into NIBIN. Examples of typical responses we received from the 22 NIBIN partner agencies we visited related to how they use the search capabilities are included in Appendix XII.

We received responses from 160 of the 174 NIBIN partner agencies that were mailed surveys. For the 160 surveys we received back, 153 answered our question related to regional searches and 152 answered our question related to national searches. As shown in the following table, the survey results showed that national and regional searches are not used often by some partner agencies.

Responses from Surveyed Partner Agencies Regarding their Use of NIBIN Searches

	Always	Seldom	Rarely	Never	Upon Request
Regional searches	104	23	5	4	17
National searches	2	37	25	15	73

Source: Survey Questionnaires from NIBIN Partner Agencies

The explanations regarding the regional searches for the agencies that responded “rarely” or “never” are contained in Appendix XIII. The

explanations regarding the national searches for the agencies that responded "rarely" or "never" are contained in Appendix XIV.

The site visit and survey results showed that most of the agencies were aware of the regional and nationwide search capabilities but did not perform them, because the agencies either did not see a need for searching beyond their local area or had received no requests from the submitting non-partner agencies. However, we identified seven partner agencies that indicated they did not perform the regional or national searches because of:

- unfamiliarity with, or lack of training on, how to use the system to perform the searches (Omaha Police Department Crime Laboratory; Prince George's County (MD) Police Department; and the Idaho State Police); and

- the time, manpower, or difficulty to perform the searches (West Virginia State Police – Charleston; Kansas Bureau of Investigation – Topeka; Massachusetts State Police – Sturbridge; and the Lake County (IN) Crime Laboratory).[33]

As a result, if a situation arises where a regional or national search might be warranted, these agencies may not be able to perform the searches and may have to seek assistance from the ATF, which could delay the results and affect the agencies' investigations. The ATF needs to ensure that these agencies receive the training, guidance or assistance to perform regional or national searches from one of the ATF laboratories or the NIBIN contractor.

Conclusion

The ATF did not fully deploy the NIBIN program equipment as planned within the two-year schedule. While the ATF planned to complete deployment by the end of FY 2002, eight percent of the NIBIN partner agencies received their equipment in FY 2003. Although the system was not deployed on schedule, it was fully deployed by the time of our audit. However, the ATF was more concerned with distributing the equipment as quickly as possible instead of ensuring that it was sent to sites that could

[33] Two of the seven partner agencies (Omaha Police Department Crime Laboratory and Prince George's County (MD) Police Department) were part of the 22 partner agencies we visited. These agencies' responses regarding searches performed are included in the table at Appendix XII. The other five partner agencies (West Virginia State Police – Charleston; Idaho State Police; Kansas Bureau of Investigation – Topeka; Massachusetts State Police – Sturbridge; and the Lake County (IN) Crime Laboratory) were part of the 174 partner agencies surveyed. These agencies' responses regarding searches performed are included in the tables at Appendices XIII and XIV.

best utilize it. As a result, we found that many non-partner agencies that did not receive IBIS equipment submitted more evidence into NIBIN than partner agencies that received the IBIS equipment. Consequently, the ATF needs to determine whether additional equipment should be purchased and sent to the high-usage non-partner agencies, or whether it should be redistributed from the low- to the high-usage non-partner agencies.

We also determined that: (1) NIBIN does have the capability to perform comparisons on a nationwide basis, and (2) most of the NIBIN partner agencies were aware of the nationwide search capabilities of NIBIN. However, the nationwide search feature of NIBIN is rarely used because most participating partner agencies rarely need to perform such searches. Also, those agencies rarely receive requests for nationwide searches from non-partner agencies submitting evidence to them. We did identify a small number of partner agencies that might benefit when performing nationwide searches with additional guidance, training, or assistance from the ATF.

Recommendations:

We recommend that the ATF:

1. Determine whether additional IBIS equipment should be purchased and deployed to high-usage non-partner agencies, or whether equipment should be redistributed from the low-usage partner agencies to high-usage non-partner agencies.

2. Provide additional guidance, training, or assistance to the partner agencies that indicated they did not perform regional or nationwide searches because they either lacked an understanding of the process or lacked manpower to perform such searches.

2. ENTERING BALLISTIC IMAGES INTO NIBIN

The ATF needs to take steps to increase the number of ballistic images entered into NIBIN. Only about 20 percent of the law enforcement agencies with potential to participate in NIBIN actually contributed evidence into the system. Participation in NIBIN could be improved if the ATF: (1) better promotes the use and benefits of NIBIN to law enforcement agencies, and (2) involves the partner agencies more in promoting the NIBIN program to other law enforcement agencies in their area. We also found that participating agencies were submitting a much smaller proportion of bullets into NIBIN than cartridge casings because NIBIN did not produce good quality images of bullets. Most of the agencies stated that it was not worth the resources needed to enter bullets in the system because the poor quality images resulted in few hits. In addition, we found potential matches in NIBIN had not been reviewed by one high-volume partner agency since January 2002, and therefore potential matches were not identified and pursued. The ATF also needs to provide guidance to NIBIN partners by stressing the importance of viewing potential matches (correlations) in a timely manner and by ensuring that NIBIN accurately reflects the status of the viewed correlations.

Data Entered Into NIBIN

We requested from the ATF a copy of its NIBIN database showing all the records entered regarding discharged bullets, cartridge casings, related information records, associated case-information records, and firearms information records. The ATF provided the requested data as of October 22, 2004, through its contractor (Forensic Technology, Inc.) located in Montreal, Canada. The data was presented in multiple tables in a relational database. For more details about the tables in the NIBIN database, see the Data Analysis section of Appendix I. The database contained the following records for 196 NIBIN partner agencies:

- 888,447 records of firearms evidence (bullets and cartridge casings) with each record containing 11 fields of information,

- 514,731 records of cases with each record containing 8 fields of information, and

- 254,187 records of firearms with each record containing 15 fields of information.

The law enforcement agency that entered the evidence, or submitted the evidence for entry, is identified in the database cases table by its Originating Agency Reporting Identifier (ORI) number. To determine the agencies (based on ORI number) that submitted evidence into NIBIN, we linked the NIBIN cases table to the NIBIN evidence table. However, we were unable to link the ORI numbers in the cases table for 55,193 of the 514,731 cases to evidence in the evidence table because of the following omissions or errors in the cases table.

- 52,392 records in the cases table had "unknown" entered in the ORI field.

- Two NIBIN partner agencies (Colorado Bureau of Investigation – Montrose and Rhode Island State Crime Laboratory) entered duplicate case ID numbers for its own cases. As a consequence, it was impossible to link the cases table to the evidence table for these agencies. A total of 2,801 records in the cases table for these two agencies contained duplicate case ID numbers. Of the total, 478 records were from the Colorado Bureau of Investigation – Montrose and 2,323 records were from the Rhode Island State Crime Laboratory.

As a result of these omissions and errors, we were unable to link the ORI numbers from the 55,193 cases in the cases table to 115,092 evidence items in the evidence table. Consequently, we were only able to link the remaining 459,538 cases in the cases table to 773,355 records of evidence in the evidence table from 194 NIBIN partner agencies. Thus, our analyses of the NIBIN data in this report are limited to the 773,355 records of evidence contributed by 194 NIBIN partner agencies.

Law Enforcement Participation in NIBIN

One factor essential to the success of the NIBIN program is the wide participation of law enforcement agencies. The ATF identified 38,717 law enforcement agencies or divisions of law enforcement agencies that received an ORI number from the FBI and that were potential candidates for participating in NIBIN. We analyzed the 773,355 evidence records that were entered into, or submitted for entry into, NIBIN as of October 22, 2004. Of that total, we determined that only 7,653 (20 percent) of the 38,717 law

enforcement agencies that had received ORI numbers had actually contributed evidence to NIBIN. These 7,653 agencies included partner and non-partner agencies. A closer examination of the evidence records revealed that the top 20 percent of law enforcement agencies (1,520) submitted 96 percent (739,959) of the 773,355 evidence records in NIBIN. The remaining agencies submitted only 4 percent (33,396) of the evidence records in NIBIN. Since the non-partner agencies submit their evidence to partner agencies for entry into NIBIN, we further analyzed the 773,355 evidence records to determine if a similar trend existed based on the partner agencies that contributed the evidence data. This analysis identified a similar trend as shown in the following table.

Contributed Records Into NIBIN

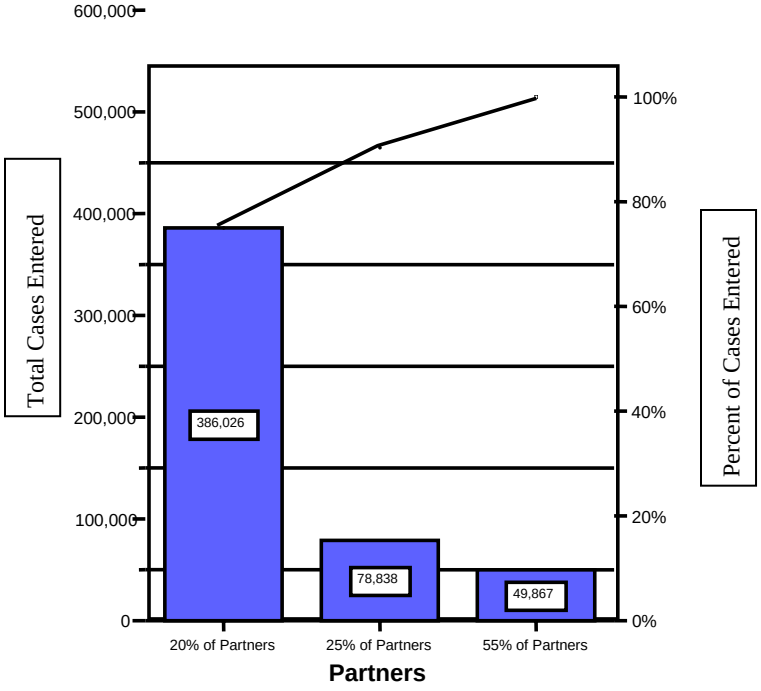
	Top 20 Percent of Partner Agencies	Next 25 Percent of Partner Agencies	Bottom 55 Percent of Partner Agencies
Cases Data	75%	15%	10%
Evidence Data	75%	16%	9%
Firearms Data[34]	73%	17%	10%

Source: OIG Analysis of NIBIN Database Records

The distribution of data contributed by the partner agencies is found to be highly skewed. More descriptive results of our analyses, including the number of cases, evidence, and firearms contributed, are presented in the following charts, which show columns for the amount of data entered into NIBIN by each group of partner agencies, and also show a line above the columns to represent the cumulative amount of data entered.

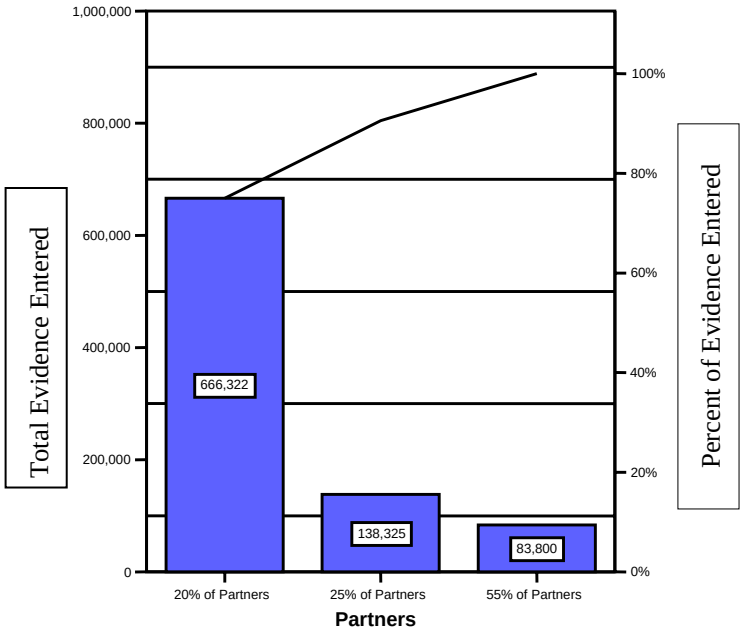
[34] The 254,187 records in the NIBIN firearms table were contributed by 184 partner agencies.

Distribution of NIBIN Case Records Among Contributing Partner Agencies



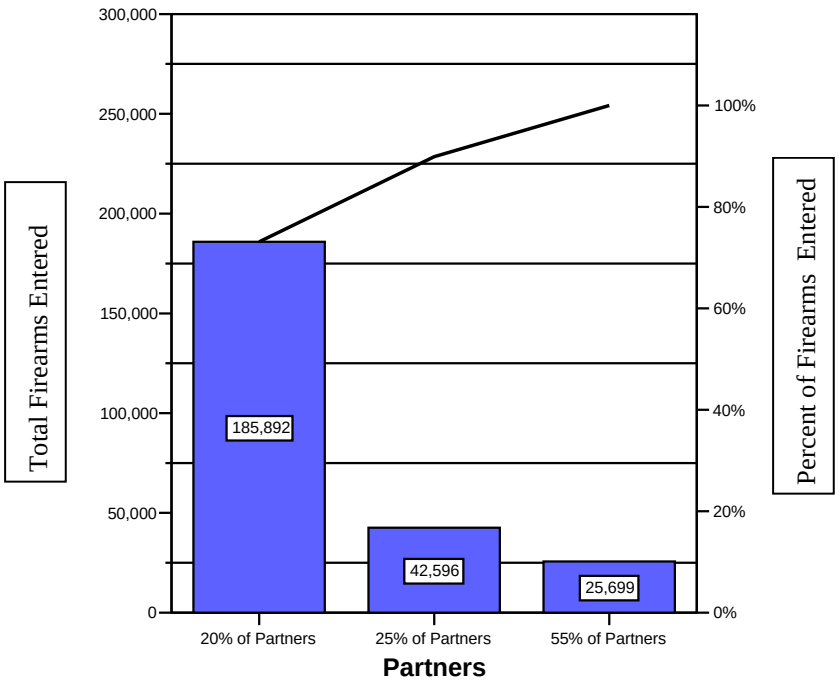
Source: OIG Analysis of NIBIN Database Cases Records

Distribution of NIBIN Evidence Records Among Contributing Partner Agencies



Source: OIG Analysis of NIBIN Database Evidence Records

Distribution of NIBIN Firearms Records Among Contributing Partner Agencies



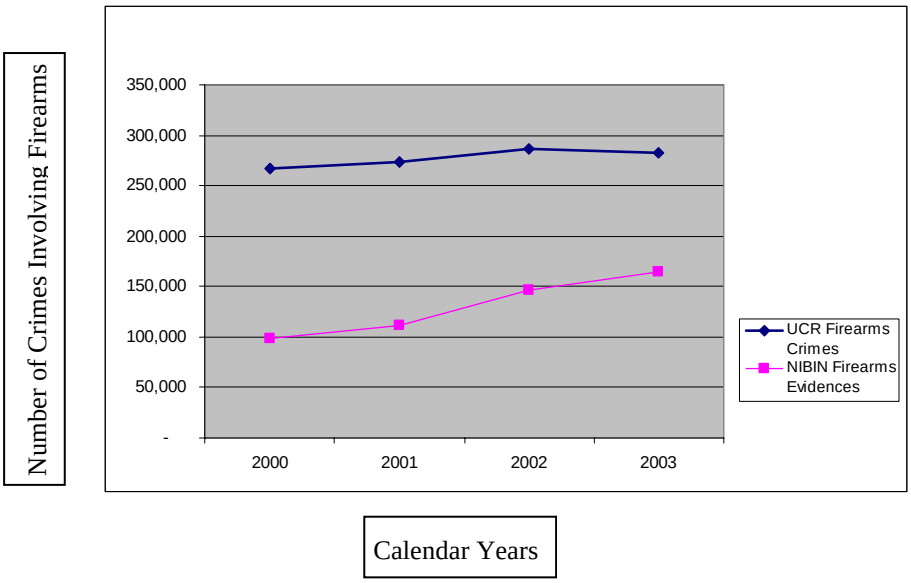
Source: OIG Analysis of NIBIN Database Firearms Records

We sought to evaluate the extent of evidence contributed to NIBIN in comparison to the extent of potential evidence based on the FBI's Uniform Crime Reports (UCR).[35] Through the UCR, law enforcement agencies report to the FBI data regarding a variety of crimes, including firearms-related crimes of robbery and aggravated assault. Other reported crimes may involve firearms but are not reported as a firearms-specific crime. We obtained the FBI's UCR data for 2000 through 2003, the most recent data available as of our audit. From the data, we extracted the number of firearms crimes reported each year and compared this data to the amount of evidence entered into NIBIN during the same time period.

[35] The UCR program encompasses approximately 17,000 law enforcement agencies nationwide that voluntarily contribute crime statistics. The program seeks to generate a reliable set of crime statistics for use in law enforcement administration, operation, and management. Agencies voluntarily provide summarized reports on offenses, persons arrested, and law enforcement officers killed and assaulted. For the most part, agencies submit monthly crime reports to a centralized crime-records facility within their state. The state UCR program then forwards the data, using uniform-offense definitions, to the FBI's national UCR program. Agencies in states that do not have a state program submit their statistics directly to the national program. The FBI compiles, publishes, and distributes the data to participating agencies, state UCR programs, and others interested in crime data.

We originally attempted to compare, for NIBIN participating agencies, the crime rate according to the UCR to the level of evidence contributed to NIBIN. However, meaningful comparisons were not possible based on the available data because of variables such as population size, population density, geographic location, and other demographic factors. Instead, to construct a rough estimate of the extent to which NIBIN contains a reasonable proportion of potential firearms evidence, we compared the nationally reported number of reported firearms crimes to the amount of evidence entered into NIBIN for calendar years 2000 through 2003. The results of our comparison are illustrated in the following chart.

Crimes Involving Firearms Reported in UCR and Firearms Evidence Entered into NIBIN

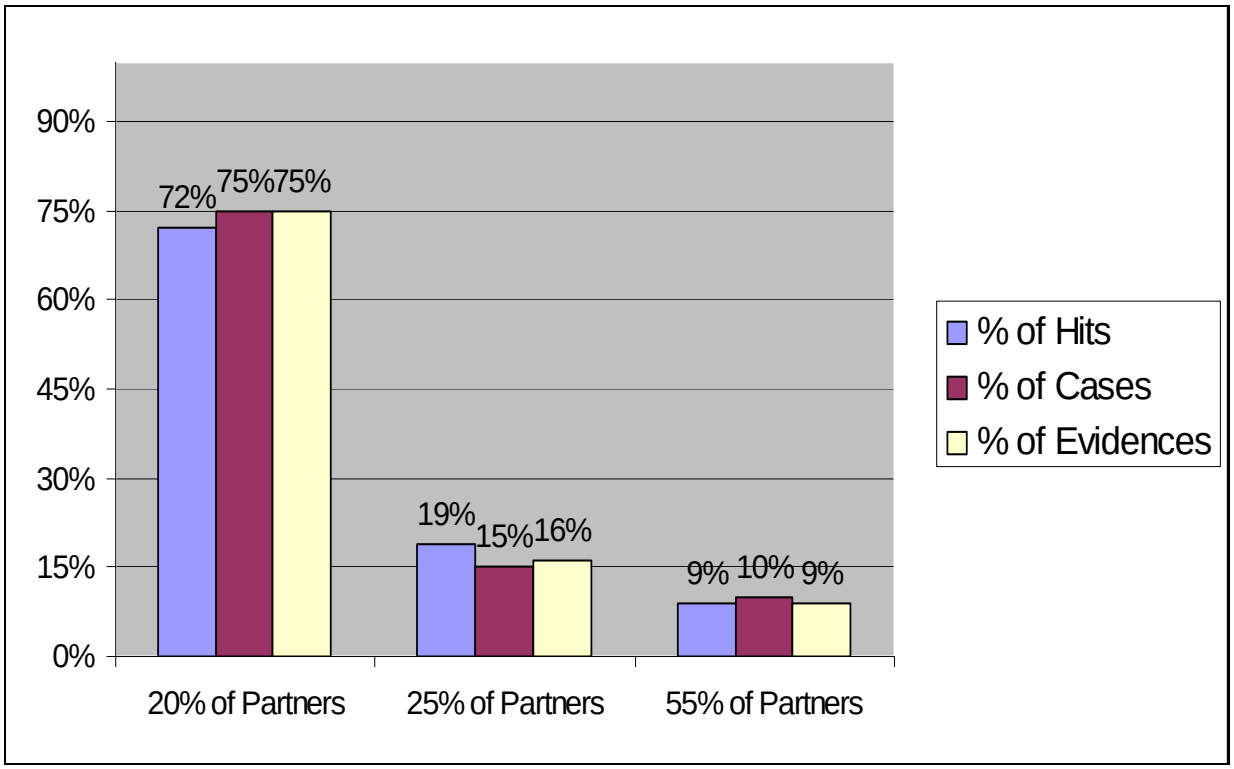


Source: FBI UCR and NIBIN Database Records

The chart shows that the gap between the firearms crimes reported and the evidence entered into NIBIN has narrowed from about 169,000 in 2000 to about 118,000 in 2003. This result was to be expected since the ATF was deploying much of the IBIS equipment during this time period. However, the chart also shows that there is potential for significant amounts of additional evidence to be entered into NIBIN each year.

As also would be expected, we found that the number of hits identified for a partner agency is closely tied to the number of cases and evidence contributed by that partner agency, as shown in the following chart.

Distribution of Hits Compared to Cases and Evidence Entered



Source: OIG Analysis of NIBIN Database Cases and Hits Data

The data indicates that as more available data is entered into NIBIN, the greater the chance of getting hits. Since a hit can provide a link to another crime, the hit could result in additional leads to investigators in solving a crime involving the use of a firearm. Therefore, to maximize the success of the NIBIN program, it is essential that the ATF and the partner agencies fully promote participation by more law enforcement agencies. The ATF's efforts to promote the program are discussed in the next section of this finding.

While the aggregate of the NIBIN data shows that more hits result as more data is entered, we found that some partner agencies had very high hit rates even though the data they entered was comparatively low as illustrated in the following table.

Analysis of Hits Compared to Cases Entered

Partner Agency	State	Total Cases Entered	Hits	Hit Rate
Johnson Co. Sheriff's Office	KS	13	5	38.5%
Allegheny Co. Coroner's Office	PA	5,030	813	16.2%
Kansas Bureau of Investigation – Topeka	KS	308	40	13%
Monroe Co. Department of Public Safety	NY	1,045	134	12.8%
Maryland State Police	MD	1,535	193	12.6%
Massachusetts State Police – Danvers	MA	166	20	12%
Minneapolis Police Department	MN	1,331	160	12%
Long Beach Police Department	CA	1,072	110	10.3%
Santa Ana Police Department	CA	1,976	183	9.3%
Westchester Co. Department of Public Safety	NY	640	54	8.4%
San Diego Police Department	CA	531	43	8.1%
Boston Police Department	MA	5,741	431	7.5%

Source: OIG Analysis of NIBIN Database Cases and Hits Data

We contacted the 12 agencies and asked what they did to get such a high hit rate. Eight of the 11 agencies that responded told us the primary reason for the high hit rate was because they enter almost all of the recovered bullet and cartridge casing evidence into NIBIN. The remaining three agencies did not believe their hit rates were as high as the ATF's NIBIN data indicated, but provided no documentation to dispute the ATF's NIBIN data. The ATF should further research why these agencies are so successful and should apply the results of such research to the majority of partner agencies that are not as successful.

Program Promotion

Given the low participation by most law enforcement agencies, we discussed with ATF officials the process of promoting the NIBIN program. ATF officials recognized that for the program to be most effective, state and local law enforcement agencies must be well informed of the existence of the NIBIN program and how it can benefit them. We found that while the ATF has taken steps to promote the program, its promotion has been mostly effective for the partner agencies, and less effective for the other agencies that submit data through the partner agencies.

We found that the ATF took the following steps to promote the program.

- The ATF staff address law enforcement groups and appear at law enforcement conferences, including the National Association of

Chiefs of Police conference, of which the NIBIN program is affiliated.

- The ATF also conducts regional conferences for NIBIN partner agencies that provide briefings on developments in the system; answer questions; and allow partner agencies to make connections and share experiences.

- The ATF publishes program information on the Internet at the NIBIN program website (www.nibin.gov).

- The ATF also publishes limited program information on the agency's main website (www.atf.gov).

- The ATF develops program publications that it makes available to interested agencies.

We asked both participating and non-participating law enforcement agencies to evaluate the ATF's promotion of the NIBIN program and its effectiveness. Specifically, we asked 16 NIBIN partner agencies we visited about the ATF's promotion efforts. We also sent survey questionnaires to: (1) 174 partner agencies and 411 participating non-partner agencies that had contributed evidence to NIBIN, and (2) 85 non-participating non-partner agencies.

Of the 16 partner agencies we visited, we found that 11 had mostly positive comments about the ATF's promotion of the program while 5 had mostly negative comments. Positive comments include the following.

- The ATF has gone to various precincts to promote the program. (Detroit, Michigan, Police Department)

- The local ATF District Office's contractor holds regional meetings annually where presentations are made to promote the benefits of participating in the program. Also, the ATF contractor holds the same types of meetings locally. (Boston, Massachusetts, Police Department and Rhode Island State Crime Laboratory)

- The ATF provides program brochures to regional and state laboratories. (Houston, Texas, Police Department)

- The ATF provides assistance or guidance in promoting the program, conducts presentations, and provides brochures and training. (Tulsa, Oklahoma, Police Department)

- The ATF sent a spokesman to a conference, and also presented a slide show at a District Attorney conference. (Mississippi State Crime Laboratory)

- The ATF made a video about the NIBIN program and the IBIS equipment and sent a copy to every agency here. (Indianapolis/Marion County, Indianapolis, Forensic Laboratory)

Negative comments include the following.

- Limited assistance is provided by the ATF, and so the department is not promoting the program. (Minneapolis, Minnesota, Police Department)

- The department does not solicit other law enforcement agencies to submit evidence, so the ATF's promotional guidance is not used. (Denver, Colorado, Police Department)

- The ATF does not provide assistance or guidance in promoting the program in our area because of a state mandate that requires local law enforcement agencies to work and train with the state and local law enforcement agencies in the use of the laboratories. (Tacoma, Washington, State Patrol Crime Laboratory)

- The ATF does not provide any specific assistance or guidance in promoting the program. However, the ATF does attend and sponsor law enforcement meetings in the area. (Los Angeles, California, Police Department)

Of the 174 partner agencies we surveyed, we obtained responses from 148 regarding the ATF's promotion of NIBIN. While 70 percent (103) of the responding agencies indicated that the ATF had provided assistance or guidance in promoting the NIBIN program, the remaining 30 percent (45) indicated that the ATF did not provide such assistance or guidance.

Of the 411 participating non-partner agencies we surveyed, we obtained responses from 228 agencies. From the responses, it appears that the ATF's promotion of the NIBIN program has not been effective. The following table illustrates that the majority of these agencies were not aware of the following ATF initiatives to promote the NIBIN program.

Analysis of Participating Non-Partner Agency Responses Related to the ATF's Promotion of the NIBIN Program

ATF Initiative	Aware		Not Aware	
	Number	Percent	Number	Percent
NIBIN Publications	59	26%	169	74%
NIBIN Pamphlets	57	25%	171	75%
Presentations at law enforcement conferences	53	23%	175	77%
Visual aids at law enforcement conferences	47	21%	181	79%
Communication with NIBIN users	56	25%	172	75%
Communication with ATF local and regional representatives	90	39%	138	61%

Source: Survey Questionnaires Returned by Participating Non-Partner Agencies

We also asked the participating non-partner agencies about their level of understanding of the NIBIN program as another way to measure the ATF's effectiveness in promoting it. We found that about half the agencies had a high or medium level of understanding of certain aspects of the NIBIN program, while the other half had a low or no understanding, or did not answer the question, as shown in the following table.

Analysis of Participating Non-Partner Agencies' Understanding of the NIBIN Program

NIBIN Program Issues	High	Medium	Percent High / Medium	Low	None	No Answer	Percent Low / None / No Answer
Ballistic imaging	39	64	45%	68	20	37	55%
Usefulness of the entry of all projectiles, discharged cartridge casings, and test-fired evidence from firearms collected	46	70	51%	63	20	29	49%
Role of state and local law enforcement agencies in the NIBIN program	43	71	50%	64	21	29	50%
Definition of a "hit" in NIBIN	56	61	51%	58	22	31	49%

Source: Survey Questionnaires Returned by Participating Non-Partner Agencies

For the 85 non-participating non-partner agencies surveyed, we obtained responses from 28 agencies. From the responses, it appears that the ATF's promotion of the NIBIN program has been even less effective. The table below shows that the majority of these agencies were not aware of the following ATF initiatives to promote the NIBIN program.

Analysis of Non-Participating Agency Responses Related to the ATF's Promotion of the NIBIN Program

ATF Initiative	Aware		Not Aware	
	Number	Percent	Number	Percent
NIBIN Publications	6	21%	22	79%
NIBIN Pamphlets	2	7%	26	93%
Presentations at law enforcement conferences	3	11%	25	89%
Visual aids at law enforcement conferences	3	11%	25	89%
Communication with NIBIN users	0	0%	28	100%
Communication with ATF local and regional representatives	10	36%	18	64%

Source: Survey Questionnaires Returned by Non-Participating Agencies

We also asked the non-participating non-partner agencies about their level of understanding of the NIBIN program as another way to measure the ATF's effectiveness of promoting the program. We found that few agencies had a high or medium level of understanding of certain aspects of the NIBIN program, while most had a low or no understanding of the program, or did not answer the question, as shown in the table below.

Analysis of Non-Participating Non-Partner Agencies' Understanding of the NIBIN Program

NIBIN Program Issues	High	Medium	Percent High/ Medium	Low	None	No Answer	Percent Low/None/ No Answer
Ballistic imaging	0	3	11%	6	7	12	89%
Usefulness of the entry of all projectiles, discharged cartridge casings, and test-fired evidence from firearms collected	0	4	14%	6	6	12	86%
Role of state and local law enforcement agencies in the NIBIN program	0	2	7%	6	8	12	93%
Definition of a "hit" in NIBIN	1	2	11%	6	7	12	89%

Source: Survey Questionnaires Returned by Non-Participating Non-Partner Agencies

In addition to the ATF's promotion of the NIBIN program, the partner agencies also promote the program to law enforcement agencies within their area to increase participation by non-partner agencies. During our visits to the NIBIN partner agencies, we determined that while some of them encourage other law enforcement agencies to participate, many do not encourage such participation. Examples of responses from the partner agencies that encourage participation included:

- At least three times a year, representatives attend the police chief's monthly meetings and discuss the NIBIN program. (Rhode Island State Crime Laboratory)

- Letters are sent to other law enforcement agencies promoting the use of the NIBIN program. (Omaha, Nebraska, Police Department Crime Laboratory)

- Brochures and e-mails are sent to other law enforcement agencies promoting the NIBIN program. Contacts with other agencies are made in person and by phone. The IBIS equipment is co-located with the training academy, and as a result, one of the courses for the recruits is related to NIBIN. (New Mexico Department of Public Safety – Santa Fe)

- Routine visits are conducted at rural police departments to inform them of the importance of submitting their evidence. Also, demonstrations are done on how to test-fire firearms and how to submit firearms evidence. In addition, monthly presentations are made to police departments and police chiefs about the laboratory operations, which include sections on the NIBIN program. (Tacoma, Washington, State Patrol Crime Laboratory)

- Presentations, which include sections about the NIBIN program, are made to local police departments and police chiefs. (Erie County, New York, Forensic Laboratory)

Examples of responses from the partner agencies that did not encourage participation included:

- We do not solicit other law enforcement agencies because the agency is too busy to take on more work, and because the county and the state already have their own equipment. (Minneapolis, Minnesota, Police Department)

- Law enforcement agencies are not solicited to submit firearms evidence. Most of the department's 11 police districts are serviced and very few requests are from outside of the department. (Boston, Massachusetts, Police Department)

- Because of the caseload and because the state bureau of investigations performs firearms evidence entries for other law enforcement agencies, specific solicitations to law enforcement

agencies are not performed. Entries are performed for federal agencies, however. (Denver, Colorado, Police Department)

- As a crime laboratory, the agency does not solicit law enforcement agencies within their service area to submit firearms evidence, because it creates the feeling of animosity by encroaching on someone else's area of responsibility. (Los Angeles, California, Police Department)

We also sent survey questionnaires to the remaining 174 partner agencies that contributed evidence to NIBIN to determine whether they solicit other law enforcement agencies to participate in the NIBIN program. Of the 160 partner agencies that returned the questionnaires, we determined that:

- 77 percent (123) stated that they do solicit other law enforcement agencies within their service area to submit firearms evidence,

- 21 percent (33) of respondents indicated they do not encourage law enforcement agencies within their service area to submit firearms evidence, and

- 2 percent (4) did not respond.

We assessed the level of outreach of the NIBIN partner agencies from the data in the NIBIN database by analyzing the number of law enforcement agencies that had submitted evidence to each partner agency. The analysis showed that while some partner agencies received evidence from other law enforcement agencies for entry into NIBIN, many partner agencies received very little evidence from other law enforcement agencies. For the 196 partner agencies that had contributed data to NIBIN, the average number of law enforcement agencies that submitted data to a partner agency was 48 and the median was 32. One partner agency (Pennsylvania State Police – Harrisburg) contributed data to NIBIN that was submitted by 478 other law enforcement agencies, while 13 partner agencies only contributed their own data. We found that 26 percent (51) of the 196 partner agencies either had not received evidence from any other law enforcement agencies or had received evidence from 10 or fewer other law enforcement agencies.

Our analyses of data in the NIBIN database; interviews of partner agency officials during site visits; and analyses of responses obtained from partner agencies, participating non-partner agencies, and non-participating non-partner agencies led us to conclude that the NIBIN program has not been fully promoted to law enforcement agencies by the ATF or by the NIBIN partner agencies. In our judgment, this lack of promotion contributes

significantly to the low participation in the program by many partner and non-partner agencies. The effectiveness of the NIBIN program could be improved if the ATF more aggressively promotes NIBIN's benefits in helping to solve crimes, and encourages the partner agencies to promote the NIBIN program to other law enforcement agencies in their area.

Collecting and Submitting Firearms Evidence

Another factor essential to the success of the NIBIN program is for the participating agencies to enter the maximum amount of evidence into the system. As shown earlier, the more evidence entered into the system, the greater the chance that hits will be identified. ATF officials told us it is not only important to enter as much evidence as possible, but also to enter both bullets and cartridge casings to take full advantage of the system's capabilities. To determine if the participating partners and non-partners were entering the maximum evidence into the system, we determined the type of data being entered by: (1) analyzing the evidence data entered into NIBIN for each partner agency, (2) visiting 22 partner agencies and discussing with agency officials the type of evidence entered into the system, (3) sending survey questionnaires to the remaining 174 partners that contributed evidence to NIBIN and to a sample of 411 participating non-partner agencies asking similar questions, and (4) contacting via telephone all the agencies that received the RBI units for imaging cartridge casings.

Our analysis of the evidence entered into NIBIN showed that 72 percent (640,652) of the evidence entered was cartridge casings and only 28 percent (247,702) of the evidence was bullets. We analyzed this data further and found that the top 10 percent of partner agencies that contributed the most balanced mix of bullets and cartridge casings contributed from 55 percent bullets/45 percent cartridge casings to 42 percent bullets/58 percent cartridge casings as shown in the following table.

Analysis of Evidence Entered into NIBIN by Partner Agencies Contributing a Balanced Mix of Bullets and Cartridge Casings

Partner Agency	Total Evidence Entered	Bullets Entered	% Bullets To Total Evidence	Cartridge Casings Entered	% Cartridge Casings To Total Evidence
ATF Laboratory – Walnut Creek (CA)	12,141	6,638	55%	5,503	45%
Florida Department of Law Enforcement – Pensacola	1,575	817	52%	758	48%
North Carolina State Bureau of Investigation Crime Lab	14,624	7,350	50%	7,274	50%
					% Cartridge

Partner Agency	Total Evidence Entered	Bullets Entered	% Bullets To Total Evidence	Cartridge Casings Entered	Casings To Total Evidence
Baltimore Co. PD	1,770	863	49%	907	51%
Florida Department of Law Enforcement – Tampa	7,307	3,521	48%	3,786	52%
Erie Co. (NY) Forensic Lab	2,411	1,131	47%	1,280	53%
Georgia Bureau of Investigation – Decatur	33,175	15,209	46%	17,966	54%
Charlotte PD	9,339	4,322	46%	5,017	54%
Knoxville PD	235	106	45%	129	55%
Greenville (SC) PD	1,745	761	44%	984	56%
Georgia Bureau of Investigation – Savannah	6,276	2,738	44%	3,538	56%
ATF Laboratory – Atlanta	19,744	8,649	44%	11,095	56%
Hickory (NC) PD	1,372	604	44%	768	56%
Bergen Co. (NJ) Sheriff's Office	1,243	551	44%	692	56%
North Dakota Dept. Of Health	9	4	44%	5	56%
State of Connecticut Department of Public Safety	5,663	2,418	43%	3,245	57%
San Mateo Co. Sheriff's Office	814	349	43%	465	57%
Alabama Department of Forensic Sciences – Huntsville	1,052	446	42%	606	58%
Pasadena (TX) PD	1,566	664	42%	902	58%
Kansas City Regional Crime Lab	903	383	42%	520	58%

Source: OIG Analysis of NIBIN Database Evidence Data

By comparison, the bottom 12 percent of partner agencies that entered the fewest bullets as compared to cartridge casings contributed from 0 (zero) percent bullets/100 percent cartridge casings to 1 percent bullets/99 percent cartridge casings as shown in the following table.

Analysis of Evidence Entered into NIBIN by Partner Agencies Contributing Mostly Cartridge Casings and Few or No Bullets

Partner Agency	Total Evidence Entered	Bullets Entered	% Bullets To Total Evidence	Cartridge Casings Entered	% Cartridge Casings To Total Evidence
Newark (NJ) PD	896	-	0%	896	100%
Massachusetts State Police – Sturbridge	344	-	0%	344	100%

Partner Agency	Total Evidence Entered	Bullets Entered	% Bullets To Total Evidence	Cartridge Casings Entered	% Cartridge Casings To Total Evidence
Washington State Police – Spokane	587	-	0%	587	100%
Northern Utah Laboratory – Ogden	370	-	0%	370	100%
Maryland State Police	1,924	-	0%	1,924	100%
Illinois State Police – Fairview Heights	1,387	-	0%	1,387	100%
Los Angeles Co. Sheriff's Office	3,544	-	0%	3,544	100%
Illinois State Police – Springfield	481	-	0%	481	100%
San Bernardino Co. Sheriff's Office	1,634	1	0%	1,633	100%
New York State Police – Albany	955	1	0%	954	100%
Washington State Patrol – Seattle	5,659	7	0%	5,652	100%
Las Vegas Metro PD	703	1	0%	702	100%
California Department of Justice – Riverside	462	1	0%	461	100%
Wisconsin State Patrol – Milwaukee	2,370	6	0%	2,364	100%
Massachusetts State Patrol – Sudbury	1,564	7	0%	1,557	100%
Massachusetts State Patrol – Danvers	192	1	1%	191	99%
Miami-Dade PD	7,597	43	1%	7,554	99%
Minneapolis PD	1,713	10	1%	1,703	99%
Tucson PD	1,284	9	1%	1,275	99%
Southwestern Institute of Forensic Sciences – Dallas	1,378	12	1%	1,366	99%
Bexar Co. (TX) Laboratory	525	5	1%	520	99%
Rhode Island State Crime Laboratory	7,988	82	1%	7,906	99%
Illinois State Police – Morton	485	5	1%	480	99%

Source: OIG Analysis of NIBIN Database Evidence Data

In our survey questionnaires and during our site visits to the partner agencies, we asked officials to explain why they were not entering bullets into NIBIN. Examples of responses from the partner agencies included:

- Bullets are not entered due to the shortage of manpower. There are priority cases that have to be worked in addition to NIBIN. More hits are from cartridge casings. (Prince George's County, Maryland, Police Department)

- The entry of bullets is extremely time-consuming and the system was not well-designed for bullets. (Minneapolis, Minnesota, Police Department)

- Some bullets from evidence are entered, but not from test-fires. The process takes considerably more time than entering cartridge casings and the hit rate on bullets is much lower than on cartridge casings. (Omaha, Nebraska, Police Department Crime Laboratory)

- Bullets are not entered due to the backlog of evidence awaiting entry. (Allegheny County, Pennsylvania, Coroner's Office Forensic Laboratory Division)

- Bullets are not entered because: (1) the quality of the correlation result is poor, (2) minimal returns on results are obtained, (3) enough manpower is not available to enter both bullets and cartridge casings, and (4) the IBIS equipment does not allow for easy imaging of bullets. (Los Angeles, California, Police Department)

- Bullet evidence is not entered due to the low probability of success. (Illinois State Police – Joliet)

We obtained similar responses from the participating non-partner agencies that responded to our survey, 25 percent of whom indicated that they submit few to no bullets for entry into NIBIN.

As the responses show, the consistent theme from both the partner agencies and the participating non-partner agencies is that the: (1) process of entering bullets is difficult and time consuming, and (2) quality of bullet images produced by the IBIS equipment is not adequate to produce enough hits for the agencies to spend the time and resources necessary to enter bullet evidence into NIBIN. The NIBIN Program Director agreed that some partner agencies are not entering bullets into NIBIN. Consequently, the ATF needs to determine whether new technology exists that will improve the image quality of bullets enough to make it worthwhile for the participating agencies to spend resources to enter the bullet data into NIBIN.

In our interviews with the agencies that received RBI units for imaging cartridge casings, we determined that most of the agencies were not satisfied with the operation of the RBI units. Consequently, some of the agencies returned the RBI units to the ATF and others were no longer using them to enter cartridge casing evidence into NIBIN. We contacted 28 agencies that had received the RBI units to inquire about their use of the

RBI units. We obtained responses from 25 of the 28 agencies regarding their satisfaction and use of the RBI units. The discussions we had with 20 of the 25 agencies indicated they were not satisfied with the operation of the RBI units. A sample of the comments we received from these agencies included:

- The RBI unit is very unreliable, the modem fails, and the agency has trouble connecting to its RDAS partner. (Aurora, Colorado, Police Department)

- The RBI unit is no good, the lighting is bad, the images are not clear, and the download is slow. (Bridgeport, Connecticut, Police Department)

- The equipment breaks down often. (North Louisiana Crime Laboratory – Alexandria)

- All RBI units should be replaced with RDAS units. The lines should be upgraded to download faster. Also, 3-D imaging technology should be incorporated into the system. (Rockland County, New York, Sheriff's Department)

- The system failed on several occasions and was down at least four months this past year. (Youngstown, Ohio, Police Department)

From our discussions, we determined that 6 of the 25 agencies had returned the RBI units to the ATF. In addition, 4 of the remaining 19 agencies indicated that they had either stopped using the RBI units to enter cartridge casing evidence into NIBIN or used the units sparingly. The NIBIN Program Director told us that the equipment manufacturer had developed a new unit that is much better at imaging cartridge casings than the RBI units, but the new unit is much more costly. We later were told by the NIBIN program staff that the RBI unit is considered to be obsolete and is no longer in production by the manufacturer. Given the dissatisfaction among users of the RBI units, the ATF needs to perform an analysis of the current RBI users, and any other potential users, to determine if they would use the new unit enough to warrant the additional cost.

Images Correlation Process

Another key factor that contributes to the success of the NIBIN program is measuring similarities between ammunition components by comparing their images entered into NIBIN using the IBIS equipment. This process is referred to as the "correlation" process and resulting measurements are called "correlations." The process works as follows:

- When images are captured by an RDAS unit, the data is sent from the unit to the regional server for storage and to generate correlations against other images in the regional database. Images that are captured by an RBI unit are sent by telephone line to the assigned RDAS unit. After a quality review, the images are transmitted to the regional server for comparison against images of other items in the regional database.

- The correlations of images are computed by algorithm electronically after examining the similarities between two images. If the images are very similar, they likely represent images of ammunition components fired from the same firearm.

- After the algorithm on the server compares the images, it ranks the list of images based on their correlation results. Since this process is automated by comparing images algorithmically, potential matches can be found in a large volume of images much faster than a firearms technician or examiner can view them manually.

- The correlation results for images with very high correlation scores are electronically sent back to the RDAS unit for evaluation.

- If the correlation results originated from an RBI unit, the agency possessing the RBI is telephoned with the results.

After the correlation process is completed, the IBIS technician at the submitting agency reviews the correlation results, selecting the top matches and identifying these matches in the IBIS system as high-confidence candidates. The high-confidence candidates must then be reviewed and examined by a licensed firearms examiner who determines whether they are actual matches resulting in a hit. To make this determination, the firearms examiner obtains the original evidence to compare with the high-confidence candidates. If the comparison results in a hit, the firearms examiner notifies the IBIS technician, who then identifies the hit in the system.

During our initial visits to NIBIN partner agencies, we found a very high-volume NIBIN partner (Georgia Bureau of Investigation – Decatur) that did not perform reviews of high-confidence candidates. At the time of our audit, the Georgia agency had not reviewed and examined high-confidence candidates since January 2002 – about 3,350 high-confidence candidates. An official from the Georgia Bureau of Investigation stated that high-confidence candidates were not being reviewed because: (1) funding for overtime for firearms examiners was not available, and (2) firearms examiners had not had the opportunity to work with the IBIS equipment.

The agency official also told us that using the IBIS equipment was considered a duty outside of the firearm examiner's daily laboratory activities.

When partner agencies do not review the hits on high-confidence candidates, it is a serious failure in utilizing the program's capability. Further, if high-confidence candidates are not reviewed, hits from the data entered into NIBIN cannot be identified and leads that might help find and convict a person involved in a firearms-related crime may not be pursued. In addition, the significant amount of resources used to collect, transport, store, protect, and enter the evidence into IBIS could be wasted. This situation was magnified because the Georgia Bureau of Investigation was a state crime laboratory that participating non-partner agencies relied on by submitting evidence for entry into IBIS. However, because the state crime laboratory did not review high-confidence candidates, the submitting non-partner agencies did not receive any benefits from the submitted data.

After identifying this problem, we asked the ATF if it had a routine report showing the non-viewed correlations for each NIBIN partner agency to determine whether other partner agencies were not reviewing the correlations. The ATF responded that it did not have a standard NIBIN report that showed this data, but stated that it was able to query NIBIN and produce a report (NIBIN Non-Viewed Correlation Requests Report) showing the non-viewed correlations as of September 30, 2004. The report identified 100 partner agencies that had a total of 4,024 bullet evidence correlations recorded in NIBIN as non-viewed and 155 partner agencies that had a total of 18,379 cartridge case evidence correlations recorded in NIBIN as non-viewed.

During our subsequent visits, we asked 15 NIBIN partner agencies to verify the non-viewed correlation numbers shown on the NIBIN Non-Viewed Correlation Requests Report. The partner agencies confirmed that the report numbers agreed with the data in NIBIN. However, the partner agencies told us that while the correlations were shown in NIBIN as non-viewed, they actually had been reviewed, but NIBIN had not been updated to show this. The partner agencies gave the following reasons for why the correlations had not been updated in NIBIN:

- The NIBIN partners did not know how to use the "correlation viewed" feature within the system. As a result, the correlations were shown as not being viewed on the ATF's report.

- The number of non-viewed correlations was representative of the volume of evidence that is put into the IBIS system on a daily basis. It takes about four hours from the time evidence is entered

until the time any correlations are ready for viewing. Consequently, the amount of non-viewed correlations was not really a backlog.

- The number of non-viewed correlations represented evidence that was downloaded from an RBI unit to another agency's RDAS unit and the correlations were marked as viewed on the other agency's RDAS unit. Later this agency received a RDAS unit and the NIBIN contractor downloaded the previous correlations to the new RDAS unit. Consequently, all the correlations appeared erroneously as non-viewed.

- A software upgrade caused previously viewed items to be reported as non-viewed.

- Correlations on the system were generated as experimental entries.

- The correlations were primarily from test-fired firearms. Personnel that were responsible for the entries for two years were in training to become a full-time firearms examiner and were not able to keep up with the correlations.

Given the problems associated with the Georgia Bureau of Investigation and the inaccurate data contained in the NIBIN Non-Viewed Correlation Requests Report, the ATF needs to: (1) provide guidance to partner agencies on the necessity to view correlations in a timely manner and to ensure that they are properly marked as viewed in NIBIN, and (2) monitor the non-viewed correlations by partner agencies, and take corrective actions when a backlog of correlations is identified.

Backlogged Evidence

The success of NIBIN depends on firearms evidence being entered into the system as soon as possible. Otherwise, leads generated from the system and from subsequent firearm examiners' analyses of the evidence may not be identified and followed-up on quickly enough to prevent additional crimes from occurring. To determine whether participating agencies were timely entering firearms evidence into NIBIN, we visited 22 NIBIN partner agencies and sent survey questionnaires to the remaining 174 partner agencies that had contributed evidence to NIBIN and to 411 participating non-partner agencies.

During our visits to the 22 partner agencies, we found that many of the agencies had significant backlogs of firearms evidence that had not been entered into NIBIN. Below are some of the results:

- 1,000 or more bullets and cartridge casings, and 269 test-fired bullets, cartridge casings, and firearms (Prince George's County, Maryland, Police Department)[36]

- 3,079 test-fired bullets and 5,202 test-fired cartridge casings (Georgia Bureau of Investigation – Decatur)

- 500 bullets and cartridge casings, and 6 firearms awaiting test-fire (Hickory, North Carolina, Police Department)

- 331 bullets and 940 cartridge casings (New Orleans, Louisiana, Police Department)

- 100 test-fired bullets and cartridge casings and 300 cartridge casings (Rhode Island State Crime Laboratory)

- 716 cartridge casings and bullets, and 1,730 test-fired cartridge casings and bullets (Los Angeles, California, Police Department)

For the 174 partner agencies surveyed, 160 returned the survey questionnaires to us. From the questionnaires returned, we determined that many of the partner agencies had significant backlogs of firearms evidence that had not been entered into NIBIN as shown in the following table.

Summary of Partner Agency Survey Responses Indicating a Backlog of Evidence Awaiting Entry into NIBIN

Type of Backlog	Number of Agencies	Amount Awaiting Entry[37]
Bullets collected	86	4,905
Cartridge cases collected	107	10,796
Bullets from test-fired firearms collected	55	10,911
Cartridge casings from test-fired firearms collected	70	5,289
Firearms awaiting test-fire	119	9,738

Source: Survey Questionnaires from Partner Agencies

[36] An official at this partner agency told us that the backlog of bullets numbered in the thousands. Since an exact number was not known, we used a conservative estimate of 1,000 or more.

[37] The amount of evidence awaiting entry into NIBIN is a conservative estimate because some agencies did not provide numbers and other agencies provided only a range of numbers. In all cases, we used the lower estimate.

The primary reasons that the partner agencies provided for backlogged evidence were staffing shortages, other priorities, and the large volume of evidence submitted.

For the 411 participating non-partner agencies surveyed, 228 returned the survey questionnaires to us. From the questionnaires returned, we determined that the participating non-partner agencies did not have a significant amount of firearms evidence that had not been entered into NIBIN.

Any delays in entering firearms evidence into NIBIN prevents matching the evidence to other evidence in the system, which could lengthen the time it takes to identify and apprehend a criminal, or could result in additional crimes being committed before the criminal is caught. Therefore, the ATF needs to develop strategies to help the partner agencies eliminate the current backlog of firearms evidence awaiting entry into NIBIN. The research should consider whether: (1) the partner agencies can send their backlogged evidence to the ATF laboratories or to other partner agencies for entry into NIBIN, and (2) improvements to the efficiency of NIBIN would facilitate more rapid and easy entry of evidence.

Federal Agencies

In January 2001, the Secretary of Treasury and the Attorney General issued memoranda requiring that all law enforcement agencies within those two departments should trace every recovered crime firearm through the ATF's National Tracing Center and enter bullets and cartridge casings found at crime scenes into NIBIN (See Appendix X).

To determine whether the Department of Justice agencies were complying with the January 2001 directive, we sent survey questionnaires to the ATF, FBI, Drug Enforcement Administration (DEA), Federal Bureau of Prisons (BOP), and United States Marshals Service (USMS) to ask whether or not they collect firearms evidence. We found that all of the agencies except the BOP collect such evidence. The BOP indicated that it does not collect firearms evidence because this type of enforcement falls within the jurisdiction of the FBI. Four agencies – the ATF, FBI, DEA, and USMS – also indicated that they submit firearms evidence for entry into NIBIN. The DEA said that the only locations that participate in the NIBIN program are the Los Angeles, Chicago, and New York division offices. The DEA also explained that it is currently working to revise the guidance given to division offices on the ballistic testing of seized firearms, and that it will be working with the ATF on specific requirements for firearms submissions to the NIBIN program. We reviewed the firearms evidence data in NIBIN as of October 22, 2004,

and found that while the ATF and FBI had many offices contributing data to NIBIN, the DEA and USMS had much lower participation as shown below.

Participation in NIBIN by Department of Justice Law Enforcement Agencies

Agency	Offices Contributing Data	Amount Of Data Contributed
ATF	114	25,170
FBI	76	2,170
DEA	38	719
USMS	13	50

Source: NIBIN database

To ensure the ATF and other federal agencies adhere to the directive established by the Attorney General and the Secretary of the Treasury, the ATF developed a pilot program in August 2003 that placed IBIS equipment for at least one year in the ATF's newly formed Southern California Regional Crime Gun Center, known as the Los Angeles Gun Center (Gun Center). The pilot project required the ATF to hire an IBIS technician on a contract basis to work at the Gun Center and enter images of the ATF's recovered firearms evidence, as well as images of all firearms evidence recovered by other federal agencies in Southern California.

One of the purposes of the pilot program was to determine the feasibility and resources for imaging 100 percent of the recovered firearms by federal agencies. Before the pilot program ended, the ATF and its NIBIN contractor (Forensic Technology, Inc.) developed protocols and procedures for test-firing and imaging all firearms recovered in the Southern California area. Protocols were also developed for maintaining and archiving test-fired evidence and associated documentation, so that the firearms evidence could be destroyed. The NIBIN Program Director told us, however, that funding was not available for the ATF to test-fire all federally seized firearms and enter all firearms evidence collected by federal agencies into NIBIN. Given the funding situation, the ATF needs to coordinate with the other Department of Justice law enforcement agencies that seize firearms and firearms evidence to help them establish a process for entering the seized evidence into NIBIN.

Conclusion

We found that only about 20 percent of the law enforcement agencies nationwide participate in NIBIN. We believe the ATF could improve participation by: (1) better promoting the use and benefits of NIBIN to law enforcement agencies, and (2) involving the partner agencies more in

promoting the NIBIN program to other law enforcement agencies in their area. We also found that many participating agencies: (1) were not satisfied with the quality of images produced by NIBIN from bullet evidence, and (2) believed that it was not cost-effective to enter bullet evidence into NIBIN because very few hits result from the poor-quality bullet images.

The ATF needs to determine if new technology exists that will improve the image quality of bullets enough to make it worthwhile for the participating agencies to spend limited resources to enter the bullet data into NIBIN. In addition, we found the potential matches in NIBIN had not been reviewed by one high-volume partner agency since January 2002. Consequently, potential leads that might result from reviewing potential matches were not identified and pursued. Finally, the ATF needs to provide guidance to NIBIN partners stressing the importance of viewing correlations in a timely manner and for ensuring that NIBIN accurately reflects the status of those viewed correlations.

Recommendations:

We recommend that the ATF:

3. Ensure that NIBIN partner agencies enter the ORI number of the contributing agency for all evidence entered into NIBIN.

4. Resolve the duplicate case ID number issue in the NIBIN database for the Colorado Bureau of Investigation – Montrose; and the Rhode Island State Crime Laboratory.

5. Research the reasons why 12 agencies have achieved high hit rates with relatively low number of cases entered into NIBIN and share the results of such research with the remaining partner agencies.

6. Establish a plan to enhance promotion of NIBIN to law enforcement agencies nationwide to help increase participation in the program. The plan should address steps to: (1) increase the partner agencies' use of the system, (2) increase the non-partner agencies' awareness and use of the system, and (3) encourage the partner agencies to promote the NIBIN program to other law enforcement agencies in their area.

7. Determine whether new technology exists that will improve the image quality of bullets enough to make it worthwhile for the participating agencies to spend valuable resources to enter the bullet data into NIBIN, and deploy the technology if it is cost-effective.

8. Perform an analysis of the current RBI users, and any other potential users, to determine if they would use an improved system enough to warrant the additional cost. If the analysis concludes that another system would be cost-effective, then the ATF should pursue funding to obtain the system.

9. Provide guidance to partner agencies on the necessity to view correlations in a timely manner and to ensure that correlations viewed in NIBIN are properly marked.

10. Monitor the non-viewed correlations of partner agencies and take corrective actions when a backlog is identified.

11. Research ways to help the partner agencies eliminate the current backlog of firearms evidence awaiting entry into NIBIN. The research should consider whether the partner agencies can send their backlogged evidence to the ATF Laboratories or to other partner agencies for entry into NIBIN, and whether improvements to the efficiency of NIBIN would facilitate more rapid and easy entry of evidence.

12. Coordinate with Department of Justice law enforcement agencies that seize firearms and firearms evidence to help them establish a process for entering the seized evidence into NIBIN.

3. PREVENTING ENTRY OF NEW FIREARMS DATA INTO NIBIN

Federal law prohibits the entry of ballistic images from newly manufactured, imported, or sold firearms into NIBIN. To ensure that this prohibition is followed, the ATF established a control that consists of NIBIN users signing an MOU agreeing not to enter such data. We tested the effectiveness of this control system and found no evidence that prohibited data had been entered into NIBIN.

NIBIN Data Prohibitions

The Firearms Owners' Protection Act of 1986 (the Act) prohibits the establishment of any system of registration of firearms, firearms owners, or firearms transactions or dispositions. This provision prohibits directly linking ballistic images through a centralized computer database to both the firearms themselves (which would constitute a firearms registry), and the identities of the private citizens who possess image firearms (which would constitute a firearms owners' registry). The Act states that:

> *No such rule or regulation prescribed after the date of the enactment of the Firearms Owners' Protection Act may require that records required to be maintained under this chapter or any portion of the contents of such records, be recorded at or transferred to a facility owned, managed, or controlled by the United States or any state or any political subdivision thereof, nor that any system of registration of firearms, firearms owners, or firearms transactions or dispositions be established.*

Language included in the ATF's annual appropriations bill also requires that ballistic images of bullets and cartridge casings from newly manufactured, imported, or sold firearms are not to be available in or connected to NIBIN. Therefore, the IBIS equipment deployed to law enforcement agencies participating in the NIBIN program should not be used to capture or store such ballistic images.

Controls Established by the ATF

We interviewed ATF officials, observed the entry of data into NIBIN by users, and obtained and reviewed documentation provided by ATF officials. The ATF officials explained that it requires NIBIN users to sign an MOU that forbids them from entering the prohibited data. The MOU states:

Ballistic imaging systems provided and deployed by ATF to other federal, state, or local law authorities may be used only for imaging operations associated with criminal law enforcement functions. Systems deployed to other federal, state, or local authorities shall not be used to capture, directly search, or store ballistic images acquired at the point of manufacture, importation, or sale.

Since NIBIN does not contain controls to prevent the entry of prohibited data, we asked an ATF official how such entry can be prevented. She told us that the ATF does not monitor the data entered by NIBIN users, but that it is unlikely that they are entering prohibited ballistic images into the system because they are fully aware of the MOU prohibition.

To evaluate whether NIBIN users were aware of and complying with the MOU prohibition, we visited 22 NIBIN partner agencies during the audit and sent survey questionnaires to the other 174 NIBIN partner agencies that operated NIBIN RDAS units. We determined that all the NIBIN partner agencies were aware of the MOU prohibition and we found no indication of non-compliance. We also sent survey questionnaires to 411 participating non-partner agencies in which we asked if the agencies submitted prohibited data for entry into NIBIN. None of the participating non-partner agencies that returned the questionnaires indicated that they submitted such data.

States That Maintain Their Own Databases

An ATF official told us that two NIBIN partner agencies, the Maryland State Police (MSP) Forensic Sciences Division and the New York State Police (NYSP), also maintain state databases with ballistic images from newly manufactured firearms. The ATF official said that it is unlikely these NIBIN users are entering prohibited ballistic images into NIBIN because the agencies are also fully aware of the MOU prohibition. We confirmed the ATF official's statement that the States of Maryland and New York had established database systems for entering ballistic images from new firearms.[38] Since these two agencies operate both NIBIN and a separate state system for new firearms images, we evaluated their compliance with the MOU prohibition by performing a comparison between the firearms data in NIBIN and the firearms data in each agency's system.

[38] In April 2000, the State of Maryland adopted the first ballistic imaging law that required the establishment of state ballistic imaging systems that directly link the images of newly manufactured or sold firearms to firearms ownership. In August 2000, the State of New York enacted a similar law that required the ballistic imaging of all handguns shipped into the state after March 1, 2001.

Maryland State Forensic Sciences Division: The MSP system that contains new firearms data is the Maryland-Integrated Ballistic Identification System (MD-IBIS). MSP officials informed us that the State of Maryland purchased its own IBIS equipment in September 2000 under the assumption that they eventually would be able to connect it to the ATF's NIBIN and share data. However, the MSP was told by the ATF that the data could not be shared between the two systems because it was illegal to do so. We observed that at the sole location where they co-exist, the NIBIN and MD-IBIS systems were kept in separate rooms and each was accessible to authorized staff only. In addition, according to MSP officials, the two systems were not connected.

The MSP officials also told us that they are aware of the federal law prohibiting entry of new firearms information into NIBIN. Further, officials believe their controls are strong enough to prevent any new firearms entry into NIBIN, because the systems are kept separate and require checks and double-checks before entry. We reviewed the MSP's controls and did not identify any weaknesses.

To determine the MSP's compliance with the prohibition against entering firearms data from newly manufactured, imported, or sold firearms, we obtained an electronic copy of the firearms data contained in the MSP's MD-IBIS system and the firearms data contained in the ATF's NIBIN. The MSP's MD-IBIS system contained 47,798 firearms records and NIBIN contained 254,187 firearms records. We performed a computerized comparison between the data in both systems. The comparison identified only 42 firearms entries from new firearms in the MD-IBIS system where the same firearms were also entered in NIBIN. Of the 42 matching entries in NIBIN, 32 were entered into NIBIN by the MSP, 8 were entered by the Washington, D.C., Metropolitan Police Department, 1 was entered by the Colorado Division of Investigation – Pueblo, and 1 was entered by the Los Angeles, California, Police Department. However, all four agencies provided documentation to show that the firearms were each entered into NIBIN as a result of a crime and not as new firearms. Therefore, we concluded that the MSP was complying with the prohibition against entering firearms data from newly manufactured, imported, or sold firearms into NIBIN.

New York State Police: The NYSP officials explained that they have two state systems for entering firearms data. One system is used for the entry of new firearms information and the other system is used for the entry of crime-related firearms information. The two systems together are known as the Combined Ballistic Identification System (COBIS). We will refer to the COBIS system for new firearms data as COBIS 1 and the COBIS system for crime-related firearms data as COBIS 2. The NIBIN and both the COBIS systems were located only at the NYSP headquarters in Albany, New York.

The NIBIN and the COBIS 2 system were located together in one room and the COBIS 1 system was located in a separate room across the hall.

The NYSP officials told us they were aware that the MOU with the ATF prohibits the entry of newly manufactured, imported, or sold firearms into NIBIN. Officials also said that they have not violated this MOU condition and that since the State of New York requires the tracking of newly manufactured, imported, or sold firearms, the state set up the separate system (COBIS 1) with controls to identify and track such firearms. We reviewed the NYSP's controls and did not identify any weaknesses.

To determine the NYSP's compliance with the prohibition against entering firearms data from newly manufactured, imported, or sold firearms, we obtained an electronic copy of the firearms data contained in the NYSP's COBIS 1 system and the firearms data contained in the ATF's NIBIN.[39] The NYSP's COBIS 1 system contained 90,063 firearms records and the NIBIN contained 254,187 firearms records. We performed a computerized comparison between the data in both systems. The comparison identified only 14 firearms entries from new firearms in the COBIS 1 system where the same firearms were also entered into NIBIN. Of the 14 matching entries in NIBIN, 5 were entered into NIBIN by the NYSP; 3 were entered by the Erie County, New York, Forensic Laboratory; 2 were entered by the Monroe County, New York, Public Safety Laboratory; 2 were entered by the Westchester County, New York, Police Department; 1 was entered by the Massachusetts State Police; and 1 was entered by the Alabama Division of Forensic Sciences laboratory. However, all six agencies provided explanations to show that the firearms were each entered into NIBIN as a result of a crime and not as new firearms. Therefore, we concluded that the NYSP was complying with the prohibition against entering firearms data from newly manufactured, imported, or sold firearms into NIBIN.

[39] The NYSP provided us a copy of the data in their COBIS 1 system while we were on-site and required that we return the data copy to them before we left the premises. Since we were not able to keep a copy of the NYSP's data, we had a NYSP official sign a statement confirming the matches we found between the NYSP's COBIS 1 data and the NIBIN data.

STATEMENT ON COMPLIANCE WITH LAWS AND REGULATIONS

We audited the Bureau of Alcohol, Tobacco, Firearms and Explosives' (ATF) administration of the National Integrated Ballistic Information Network (NIBIN) program. The audit covered the period from July 1999 to February 2005. The audit was conducted in accordance with the generally accepted *Government Auditing Standards*.

Compliance with laws and regulations is the responsibility of the NIBIN Program Management Office. In connection with the audit and as required by the *Standards*, we reviewed procedures, activities, and records to obtain reasonable assurance about the Program Management Office's compliance with laws, regulations, and the Office of Management and Budget (OMB) Circulars that, if not complied with, could have a material effect on program operations.

Our audit included examining, on a test basis, evidence about laws, regulations, and OMB Circulars. The specific laws and regulations for which we conducted tests are contained in the relevant portions of:

- OMB Circular A-123,
- the Firearms Owners' Protection Act of 1986,
- annual appropriations for the Department of the Treasury for FY 1999 through FY 2003, and
- annual appropriations for the Department of Justice for FY 2004 through FY 2005.

We also reviewed the following laws, regulations, and NIBIN-related documentation and procedural manuals applicable to the ATF's administration of the NIBIN program:

- Federal Firearms Regulations Reference Guide,
- Memorandum of Understanding between the ATF and the FBI,
- Memorandum of Understanding between the ATF and its NIBIN partner agencies,
- January 2001 memoranda from the Attorney General and the Secretary of the Treasury mandating participation of both departments' law enforcement agencies in the NIBIN program,

- ATF Office of Laboratory Services Policies and Procedures Guidelines,

- IBIS User's Quick Reference Guide,

- IBIS User's Guide, Version 3.3,

- IBIS User's Training Guide, and

- IBIS User's Training Course, Version 3.4.

Except for instances of noncompliance identified in the Findings and Recommendations section of this report, the NIBIN Program Management Office was in compliance with the laws and regulations referred to above.

ACRONYMS

ATF	Bureau of Alcohol, Tobacco, Firearms and Explosives
BOP	Bureau of Prisons
COBIS	Combined Ballistic Identification System
DEA	Drug Enforcement Administration
FBI	Federal Bureau of Investigation
GAO	Government Accountability Office
Gun Center	Southern California Regional Crime Gun Center
IBIS	Integrated Ballistic Information System
KBI	Kansas Bureau of Investigation
MD-IBIS	Maryland-Integrated Ballistic Identification System
MOU	Memorandum of Understanding
MSP	Maryland State Police
NIBIN	National Integrated Ballistic Information Network
NYSP	New York State Police
OMB	Office of Management and Budget
ORI	Originating Agency Reporting Identifier
PD	Police Department
RBI	Rapid Brass Identification
RDAS	Remote Data Acquisition Station
SO	Sheriff's Office
The Act	Firearm Owners' Protection Act of 1986
UCR	FBI's Uniform Crime Reports
USMS	United States Marshals Service

APPENDIX I

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

Audit Objectives

The objectives of our audit were to evaluate whether: (1) the National Integrated Ballistic Information Network (NIBIN) program has been fully deployed with the capability to compare ballistic images on a national level; (2) controls are adequate to ensure that all bullets and/or cartridge casings collected at crime scenes and from test-fires of crime firearms are entered into NIBIN; and (3) controls are adequate to ensure that ballistic images of bullets and cartridge casings from newly manufactured, imported, or sold firearms are not available in, or connected in any way to NIBIN. We performed our audit in accordance with the *Government Auditing Standards* and, accordingly, included such tests of the procedures and practices, as we deemed necessary.

Scope and Methodology

As part of the audit, we reviewed applicable federal laws and regulations, policies, procedures and management reports from the NIBIN Program Management Office. We also interviewed officials from the NIBIN Program Management Office; visited law enforcement agencies that were provided IBIS equipment by the ATF and are considered NIBIN partner agencies; and sent survey questionnaires to Department of Justice law enforcement agencies, NIBIN partner agencies, NIBIN participating non-partner agencies, and NIBIN non-participating non-partner agencies. We also interviewed contractor personnel working on the NIBIN program in connection with contracts established by the NIBIN Program Management Office. We performed on-site audit work at the following 30 locations.

Agency Visited	Location
ATF Laboratory	Ammendale, MD
ATF Laboratory	Atlanta, GA
FBI Laboratory	Quantico, VA
Allegheny County Coroner's Office	Pittsburgh, PA
Boston Police Department	Boston, MA
Charlotte-Mecklenburg Police Department	Charlotte, NC
Denver Police Department	Denver, CO
Detroit Police Department	Detroit, MI
Erie County Forensic Laboratory	Buffalo, NY
Gastonia Police Department	Gastonia, NC
Georgia Bureau of Investigation	Decatur, GA

Agency Visited	Location
Hickory Police Department	Hickory, NC
Houston Police Department	Houston, TX
Indianapolis-Marion County Forensic Laboratory	Indianapolis, IN
Los Angeles Police Department	Los Angeles, CA
Maryland State Police	Pikesville, MD
Minneapolis Police Department	Minneapolis, MN
Mint Hill Police Department	Charlotte, NC
Mississippi State Crime Laboratory	Jackson, MS
New Mexico State Police	Santa Fe, NM
New Orleans Police Department	New Orleans, LA
New York State Police Forensic Investigation Center	Albany, NY
Omaha Police Department Crime Laboratory	Omaha, NE
Prince George's County Police Department	Landover, MD
Rhode Island State Crime Laboratory	Kingston, RI
Rowan County Sheriff's Department	Salisbury, NC
Salisbury Police Department	Salisbury, NC
Statesville Police Department	Statesville, NC
Tulsa Police Department	Tulsa, OK
Washington State Patrol Crime Laboratory	Tacoma, WA

To determine whether the IBIS equipment has been fully deployed, we:

- interviewed ATF officials concerning the methodology and process used to determine how the IBIS equipment would be deployed;
- obtained and reviewed documentation such as memoranda, schedules, and procedures related to the ATF's deployment plan for NIBIN;
- obtained and analyzed a list showing the agencies that received the IBIS equipment and when the equipment was installed;
- compared the actual deployment of the IBIS equipment to the planned deployment schedule; and
- obtained and analyzed firearms data entered into NIBIN for both partner agencies and non-partner agencies.

To determine if NIBIN has been deployed with the capability to compare ballistic images on a national level, we:

- interviewed ATF officials and made observations of the system's capability to perform nationwide comparisons;

- visited 22 of the 196 NIBIN partner agencies that had received RDAS equipment as of October 22, 2004; and

- sent survey questionnaires to the remaining 174 partner agencies to understand how the nationwide comparison is used.

To evaluate whether controls are adequate to ensure that all bullets and/or cartridge casings collected at crime scenes and from test-fires of crime firearms are entered into NIBIN, we:

- obtained a copy of the NIBIN database as of October 22, 2004, and determined it contained 888,447 records of firearms evidence, 514,731 records of cases, and 254,187 records of firearms for 196 NIBIN partner agencies;

- analyzed the database to identify errors and omissions in the database records;

- analyzed the NIBIN data to determine how many of the 38,717 law enforcement agencies with ORI numbers had contributed data to NIBIN;

- analyzed the NIBIN data entered by the partner agencies to determine its distribution;

- analyzed the NIBIN data entered into the system to compare it to the firearms crime data contained in the FBI's UCR, and to determine whether the amount of data entered into NIBIN is comparable to the number of firearms crimes reported each year;

- analyzed the distribution of hits in NIBIN compared to the cases and evidence entered into NIBIN;

- interviewed ATF officials to determine what efforts they made to promote the NIBIN program to law enforcement agencies;

- asked both participating and non-participating law enforcement agencies about the ATF's promotion of the NIBIN program. Specifically, we asked 16 NIBIN partner agencies we visited about

the ATF's promotion efforts. We also sent survey questionnaires to: (1) 174 partner agencies and 411 participating non-partner agencies that contributed evidence to NIBIN, and (2) 85 non-participating non-partner agencies;

- asked the partner agencies about their efforts to promote the NIBIN program among law enforcement agencies in their area. Specifically, we asked 16 partner agencies we visited about their efforts to promote the program and we sent survey questionnaires to 174 partner agencies that contributed data to NIBIN;

- evaluated whether partner agencies and participating non-partner agencies were entering the maximum amount of evidence into the system by: (1) analyzing the evidence data entered into NIBIN for each partner agency, (2) visiting 22 partner agencies and discussing with agency officials the type of evidence entered into the system, (3) sending survey questionnaires to the remaining 174 partners that contributed evidence to NIBIN and to a sample of 411 participating non-partner agencies asking similar questions, and (4) contacting the agencies by telephone that received RBI units to discuss their use of these units when entering cartridge casings into NIBIN;

- evaluated the correlation process during our visits to partner agencies to determine whether they were reviewing the correlations to identify hits in a timely manner. We also obtained a report from the ATF showing all correlations not viewed by the partner agencies. During our visits to the partner agencies, we verified the accuracy of the non-viewed correlations shown on the report and asked the agencies to explain the basis for the non-viewed correlations;

- evaluated whether participating agencies were entering firearms evidence into NIBIN in a timely manner. We visited 22 NIBIN partner agencies and sent survey questionnaires to the remaining 174 partner agencies that had contributed evidence to NIBIN and to 411 participating non-partner agencies. We asked the agencies if they had firearms evidence awaiting entry, how much evidence was awaiting entry, and the reasons for the backlog; and

- sent survey questionnaires to the Department of Justice law enforcement agencies to determine if they were complying with a January 2001 mandate from the Attorney General and the Secretary of the Treasury to enter crime-related firearms evidence into NIBIN.

To evaluate whether controls are adequate to ensure that ballistic images of bullets and cartridge casings from newly manufactured, imported, or sold firearms are not available in, or connected in any way to NIBIN, we:

- interviewed ATF officials to determine whether the ATF had established any controls within NIBIN to prevent users from entering ballistic images from newly manufactured, imported, or sold firearms;

- observed the entry of firearms data into NIBIN at 22 agencies that received the IBIS equipment;

- sent survey questionnaires to: (1) the remaining 174 NIBIN partner agencies that had contributed data to NIBIN; and (2) 411 participating non-partner agencies, and asked all of them if they had contributed data to NIBIN on newly manufactured, sold, or imported firearms;

- obtained and reviewed a copy of the MOU that is signed by the ATF and each NIBIN user prohibiting users from entering ballistic images from newly manufactured, imported, or sold firearms into NIBIN;

- interviewed Maryland State Police (MSP) officials to obtain an understanding of the MD-IBIS system that is used to enter ballistic images from new firearms;

- evaluated the MSP's controls to ensure the new firearms data entered into the MD-IBIS system was not also entered into NIBIN operated by the MSP;

- obtained a copy of the MSP's MD-IBIS system data containing 47,798 firearms records and compared the MD-IBIS data to the 254,187 firearms records contained in the NIBIN database to determine whether any firearms data entered into the MD-IBIS system was also entered into NIBIN;

- obtained documentation from the MSP; Washington, D.C., Metropolitan Police Department; Colorado Division of Investigation – Pueblo; and the Los Angeles Police Department to confirm that the matching firearms data identified in our comparison of the MD-IBIS data and NIBIN data was entered into NIBIN as a result of crimes;

- interviewed New York State Police (NYSP) officials to obtain an understanding of the COBIS system that is used to enter ballistic images from new firearms;

- evaluated the NYSP's controls to ensure the new firearms data entered into the COBIS system was not also entered into NIBIN by the NYSP;

- obtained a copy, for review on-site, of the NYSP's COBIS system data containing 90,063 firearms records and compared the COBIS data to the 254,187 firearms records contained in the NIBIN database to determine whether any firearms data entered into the COBIS system was also entered into NIBIN; and

- obtained documentation from the NYSP; Erie County, New York, Forensic Laboratory; Monroe County, New York, Public Safety Laboratory; Westchester County, New York, Police Department; Massachusetts State Police; and the Alabama Division of Forensic Sciences laboratory to confirm that the matching firearms data identified in our comparison of the COBIS data and NIBIN data was entered into NIBIN as a result of crimes.

Data Analysis

To accomplish the audit objectives, we obtained and analyzed automated data from the ATF regarding: (1) the records in the NIBIN database as of October 22, 2004, and (2) the non-viewed correlation requests in NIBIN as of September 2004.

NIBIN Database Records: The NIBIN data is contained in multiple tables in a relational database. The ATF provided to us the NIBIN database evidence table containing records of discharged bullets and cartridge casings in the system, the cases table containing associated cases information, and the firearms table containing records of firearms in NIBIN. The evidence table contained 888,447 records of firearms evidence with each record containing 11 fields of information. The cases table contained 514,731 cases records with each record containing 8 fields of information. The firearms table contained 254,187 records of firearms with each record containing 15 fields of information.

The law enforcement agency that entered the evidence or submitted the evidence for entry, is identified in the database cases table by its ORI number. To determine the agencies (based on ORI number) that submitted evidence into NIBIN, we linked the NIBIN cases table to the NIBIN evidence table. We were unable to link the ORI numbers in the cases table to

evidence in the evidence table for 55,193 of the 514,731 cases in the cases table because of the following omissions or errors in the cases table.

- 52,392 records in the cases table had "unknown" entered in the ORI field.

- 2,801 records in the cases table for two NIBIN partner agencies (Colorado Bureau of Investigation – Montrose and Rhode Island State Crime Laboratory) contained duplicate case ID numbers that made it impossible to link the cases table to the evidence table for these two agencies.

As a result of these omissions and errors, we were unable to link the ORI numbers from the 55,193 cases in the cases table to 115,092 evidence items in the evidence table. Consequently, we were only able to link the remaining 459,538 cases in the cases table to 773,355 records of evidence in the evidence table from 194 NIBIN partner agencies. Thus, our analyses of the NIBIN data in this report are limited to the 773,355 records of evidence contributed by 194 NIBIN partner agencies.

Non-Viewed Correlations Data**:** During the audit, we found that one high-volume partner agency (Georgia Bureau of Investigation – Decatur) did not view the correlations identified by NIBIN. We asked the ATF for a report showing the non-viewed correlations for each NIBIN partner agency to determine whether other partner agencies also were not reviewing the correlations. The ATF queried NIBIN and produced a report (NIBIN Non-Viewed Correlation Requests Report) showing the non-viewed correlation request as of September 30, 2004. The report identified 100 partner agencies that had a total of 4,024 bullet evidence correlations that were recorded in NIBIN as non-viewed and 155 partner agencies that had a total of 18,379 cartridge case evidence correlations that were recorded in NIBIN as non-viewed. During our site visits to 15 of the 100 NIBIN partner agencies, we verified the accuracy of the non-viewed correlations shown on the NIBIN Non-Viewed Correlation Requests Report. Since our visits to 15 percent of the partner agencies identified on the report disclosed no discrepancies in the reported numbers, we relied on the report for our audit work.

APPENDIX II

NIBIN PROGRAM HISTORY

In 1993, the ATF established its computerized ballistics imaging system called CEASEFIRE and later renamed the program as the Integrated Ballistics Identification System (IBIS). Initially, the IBIS compared only marks on bullets. The system was later expanded to compare marks on cartridge casings as well. Approximately 103 law enforcement agencies participated in the IBIS program.

Also in 1993, the FBI established a computerized ballistics imaging system called DRUGFIRE. DRUGFIRE compared only marks on cartridge cases, but was later expanded to compare marks on bullets. Approximately 171 law enforcement agencies participated in the DRUGFIRE program.

Because the ATF's IBIS system and the FBI's DRUGFIRE system contained different firearms records, some federal, state, and local law enforcement agencies used both systems. Because of the inefficiency for the users of the systems and because the two systems were duplicative, in 1997 the ATF and the FBI signed an MOU in which they agreed to make the two systems compatible. As a result, in 1997 the NIBIN program was established to consolidate the two systems. Recognizing that it was not technologically feasible to combine the two systems into one, the ATF and the FBI directed their efforts to making the two systems interoperable so that users of one system could have access to the firearms records of the other. However, the attempt to achieve interoperability raised some technological difficulties. The ATF and the FBI worked with the National Institute of Standards and Technology to develop a standard for interoperability and to develop and oversee interoperability conformance tests. Although progress was made to achieve the interoperability of DRUGFIRE and IBIS, it was ultimately decided to unify the system by using only one type of ballistics imaging system. After evaluating the two systems, the ATF and the FBI agreed to establish a unified system by using: (1) the IBIS equipment used by the ATF; and (2) the secure, high-speed telecommunications network used by the FBI. In December 1999, the ATF and the FBI entered into a new MOU for joint agency implementation of the NIBIN program.

The two agencies' efforts resulted in the development and maintenance of a single system used by law enforcement agencies to collect and store digital images of firearms evidence. Through the NIBIN program, IBIS equipment was deployed to a total of 231 state and local law enforcement agencies for their use in imaging and comparing crime firearms evidence.

Until October 2003, the FBI was responsible for the establishment, maintenance, and funding of the high-speed integrated, nationwide network that connected the NIBIN program equipment. In addition, the FBI was responsible for generating and disseminating statistical and activity reports regarding the network communication system. In October 2003, after realizing that having two agencies responsible for different aspects of the same national program was an ineffective management arrangement, the FBI relinquished its network responsibilities and authority to the ATF. The FBI's role in NIBIN, other than that of a participating partner under the NIBIN program, ceased. Consequently, the ATF became solely responsible for all aspects of the NIBIN program.

EXAMPLE MEMORANDUM OF UNDERSTANDING BETWEEN THE ATF AND THE NIBIN PARTNER AGENCIES

MEMORANDUM OF UNDERSTANDING

Between the Bureau of Alcohol, Tobacco, Firearms and Explosives and
the Agency Name Regarding the
National Integrated Ballistic Information Network

This Memorandum of Understanding (MOU) is entered into by the U.S. Department of Justice (DOJ), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), and the (Agency Name), hereinafter collectively referred to as "the parties." The MOU establishes and defines a partnership between the parties that will result in the installation, operation, and administration of ATF integrated ballistics imaging systems for the collection, analysis, and dissemination of crime gun data through ATF's National Integrated Ballistic Information Network (NIBIN) Program at the Agency.

AUTHORITY

This MOU is established pursuant to the authority of the participants to engage in activities related to the investigation and suppression of violent crimes involving firearms. ATF's authority is derived from, among other things, the Gun Control Act of 1968 (as amended), 18 U.S.C. Chapter 44.

BACKGROUND

Violent crimes are being committed with firearms in the United States. A firearm leaves unique, identifiable characteristics on expelled ammunition. Firearms, expended bullets, and cartridge casings associated with crimes are currently being collected and maintained as evidence by law enforcement agencies. The ATF NIBIN Program assists Federal, state, and local law enforcement agencies in combating firearms-related violence through the use of Integrated Ballistics Identification System (IBIS) technology to compare images of ballistic evidence (projectiles and cartridge casings) obtained from crime scenes and recovered firearms.

SCOPE

Participation in this program is expressly restricted to the ballistic imaging of firearms data associated with crimes. NIBIN equipment provided and deployed by ATF to other Federal, State, or local law authorities may be used only for imaging of ballistic evidence and test fires of firearms taken into law enforcement custody.

NIBIN equipment deployed by ATF to Federal, state, or local authorities shall not be used to capture or store ballistic images acquired at the point of manufacture, importation, sale, law

enforcement issued firearms not associated with crimes. Nothing in this MOU shall preclude State or local parties from capturing or storing such information in local ballistic imaging systems, provided that such local imaging systems shall not be connected to NIBIN without ATF's specific written approval, which must be consistent with current ATF authorization and appropriations restrictions and policy.

APPLICABLE LAWS

The applicable statutes, regulations, directives and procedures of the United States, DOJ, and ATF shall govern this MOU and all documents and actions pursuant to it.

Nothing in this MOU will prevail over any Federal law, regulation, or other Federal rule recognized by ATF.

This MOU does not grant any funding whatsoever. All specific actions agreed to herein shall be subject to funding and administrative or legislative approvals.

MODIFICATIONS AND TERMINATIONS

This MOU shall not affect any pre-existing or independent relationships or obligations between the parties. If any provision of this MOU is determined to be invalid or unenforceable, the remaining provisions shall remain in force and unaffected to the fullest extent permitted by law and regulation.

Except as provided herein, this MOU may be modified or amended only by written, mutual agreement of the parties. Either party may terminate this MOU by providing written notice to the other party. The termination shall be effective upon the thirtieth calendar day following notice, unless a later date is agreed upon.

If either party terminates this MOU, ATF will retain its interest in the NIBIN equipment and in the electronically stored information contained in the database. ATF agrees to provide to (Agency Name) an electronic copy of the data collected by (Agency Name).

INCORPORATION OF APPENDIX

The Appendix to this MOU includes definitions of terms used; requirements concerning NIBIN equipment; usage, movement, and removal of the equipment; Rapid Brass Identification (RBI) users and host Data Acquisition System (DAS) sites; maintenance of the equipment; security requirements; audits; personnel and training; and coordination of NIBIN efforts. Because these requirements may change over time due to technological advances, security enhancements, budgetary matters, and so forth, the Appendix may be occasionally updated. Parties to the

MOU agree and understand that the Appendix is incorporated by reference as if fully stated herein. Execution of the MOU constitutes agreement to abide by the requirements and protocols set forth in the Appendix.

SIGNATORIES

The terms and conditions of this MOU will be considered accepted in their entirety upon the signature by ATF Division Director (SAC Name) and (LE Exec Name), (LE Exec Title), representing (Agency Name).

LIABILITY

The (Agency Name) hereby agrees to assume full and sole liability for any damage, injury, or harm of any sort caused by the operation and use of any NIBIN equipment or related to the use and interpretation of any information contained in, processed by, or extracted from any data base subject to this agreement and the protocols and procedures of the NIBIN Program.

No third party is intended to benefit or otherwise claim any rights whatsoever under this MOU. The rights and obligations set out in the MOU run between the signatories to this MOU only.

AGREEMENT

ATF and the (Agency Name) hereby agree to abide by the terms and conditions of this MOU, including any appendices, and all policies of the NIBIN Program.

In witness thereof, the parties have hereby executed this MOU this _____ day of _____, _____.

(SAC Name) Division Director Bureau of Alcohol, Tobacco, Firearms and Explosives (Field Division) Field Division	(LE Exec Name) (LE Exec Title) (Agency Name) (City/County/State)

Patricia L. Galupo, Director, NIBIN Program
Bureau of Alcohol, Tobacco, Firearms and Explosives
Washington, DC

Appendix

TERMS

ATF Bureau of Alcohol, Tobacco, Firearms and Explosives, a bureau within DOJ.

Bullets Designated calibers of projectiles fired from rifles, revolvers and pistols.

Cartridge Casings – Designated metal casings from cartridges fired from rifles and revolvers and ejected from pistols.

Correlation – Automated data comparison of signature images to a database.

Crime Gun - A firearm that has been taken into police custody pursuant to a bonafide law enforcement investigation.

IBIS System - Any and all portions of an integrated/automated ballistic image processing system specifically defined as Integrated Ballistics Identification System (IBIS). This includes all the hardware and software that performs the complete function and/or generates data reports of results on the comparison of images of ballistic evidence (bullets and cartridge casings) obtained from crime scenes and recovered firearms.

NIBIN Equipment refers to integrated ballistics imaging, analysis, and information processing equipment wholly owned and provided by ATF.

NIBIN Network – An ATF designed and maintained system of interconnected computer systems and terminals used in support of the NIBIN Program and the IBIS System.

NIBIN Program – the management and administration of NIBIN, including the installation and utilization of the NIBIN equipment.

Security Requirements – Types and levels of protection necessary for equipment, data, information, applications, and facilities to meet security policies.

Security Policies – The set of laws, rules, directives and practices that regulate how an organization manages, protects and distributes controlled information.

Volunteers – Individuals who have chosen to perform gratuitous services and have entered into an agreement with the local NIBIN partner agency addressing all issues of confidentiality, costs and a waiver of all claims against the Federal government.

EQUIPMENT REQUIREMENTS

The (Agency Name) hereby agrees and acknowledges that all NIBIN equipment installed and maintained by ATF shall remain the property of ATF and the U.S. Government.

ATF agrees to provide, install and maintain NIBIN equipment to the (Agency Name) for use by the (Agency Name) and any other law enforcement agencies served by or in partnership with the (Agency Name). The (Agency Name) may provide access to the NIBIN equipment under its operational control to any other law enforcement agency only pursuant to a written agreement in which such other law enforcement agency agrees to the same restrictions placed upon the (Agency Name) by this MOU. However, the (Agency Name) agrees to assume full liability and responsibility for the administration of such access.

Should the installation of the NIBIN equipment require physical construction at the site, (Agency Name) will be responsible for such construction and any costs associated therein.

MOVEMENT OF NIBIN EQUIPMENT

Any movement of the NIBIN equipment after the initial installation must be accomplished with prior written approval of ATF and at the expense of the (Agency Name).

In the event of unauthorized movement, alteration, damage, or destruction of any NIBIN equipment caused by its employees, contractors, or any other person under its control, the (Agency Name) agrees to assume the cost of replacement or repairs of the equipment.

The (Agency Name) agrees to report to ATF, within 5 working days, any incident involving an unauthorized movement, alteration, damage, or destruction of ATF-owned NIBIN equipment; any unauthorized use of NIBIN equipment; or the unauthorized release of data related to the NIBIN Program.

RAPID BRASS IDENTIFICATION (RBI) USERS AND HOST DATA ACQUISITION SYSTEM (DAS) SITES

ATF will provide and support primary communication lines necessary for connecting NIBIN equipment to the NIBIN network. The (Agency Name) agrees to assume complete liability and responsibility for the installation, use, and maintenance of any ancillary communication lines supporting an RBI system under its control.

MAINTENANCE OF NIBIN EQUIPMENT

ATF will maintain all NIBIN equipment furnished to the (Agency Name) and repair or replace inoperable or outdated equipment in an expeditious manner, subject to availability and funding. However, maintenance and repairs required as the result of unauthorized movement, alteration, damage, or destruction will not be assumed by ATF. The (Agency Name) agrees not to make or cause to be made any repairs, alterations, movements, additions, improvements, replacements, etc., to the NIBIN equipment not expressly authorized by ATF in advance, and further agrees to exercise due care in every respect to prevent movement, damage, destruction, or misuse of the equipment.

ATF further agrees to provide appropriate upgrades to the NIBIN equipment or related software in an expeditious manner, subject to availability and funding.

SECURITY REQUIREMENTS

The (Agency Name) will comply with all ATF, DOJ or other Federal security requirements related to the NIBIN equipment, NIBIN program, personnel, or NIBIN network. These requirements are set forth under NIBIN security policies. ATF will promptly notify the (Agency Name) should these requirements change.

The (Agency Name) agrees to conduct criminal background checks, including fingerprint checks, on all users of NIBIN DAS and RBI equipment. Upon successful completion of these background checks, (Agency Name) will notify the NIBIN Office in writing, verifying that the user is cleared, at least 30 days before the user is given access to the equipment.

REMOVAL OF NIBIN EQUIPMENT

ATF retains the right to remove the NIBIN equipment upon (1) its determination that the equipment is being neglected or misused; (2) or is not being used to a reasonable degree; (3) receipt of written notification of the termination of the participation of the (Agency Name) in the NIBIN Program; (4) termination of the NIBIN Program by ATF; (5) the cancellation of this MOU by ATF; or (6) failure to comply with any obligations or requirements set forth in this MOU. If ATF intends to remove the NIBIN equipment from the (Agency Name), ATF will provide written notice not less than 10 business days prior to the removal of the equipment.

AUDITS

ATF and the (Agency Name) acknowledge their understanding that the operations described in this MOU are subject to audit by ATF; the Department of Justice, Office of the Inspector General; the General Accounting Office; and other auditors designated by the U.S. Government.

Such audits may include reviews of any and all records, documents, reports, accounts, invoices, receipts, or other evidence of expenditures related to this MOU and the NIBIN Program.

Further, all parties hereby agree to allow auditors to conduct one or more in-person interviews of any and all personnel the auditors have determined may have knowledge relevant to transactions performed or other matters involving this MOU and the NIBIN Program.

The (Agency Name) hereby acknowledges its understanding that, for accounting purposes, the principles and standards for determining costs shall be governed by the policies set forth in the Office of Management and Budget (OMB) Circular A-87, revised (available via the OMB, the Superintendent of Documents at the U.S. Government Printing Office, or via the Internet at http://www.whitehouse.gov/omb/circulars/a087/a087-all.html.)

PERSONNEL AND TRAINING

Prior to the execution of this MOU and Data Acquisition System/Remote (DAS/R) installation, the (Agency Name) must have a technical person on staff capable of performing forensic microscopic comparison of bullet and cartridge evidence. The Agency agrees to provide sufficient personnel to operate NIBIN equipment. This MOU should not be construed to require the hiring of any new personnel, except at the discretion of the (Agency Name). If the (Agency Name) determines that additional personnel resources are required, all costs associated with this hiring will be borne by Agency. Volunteers must satisfy the same requirements as other users of the NIBIN equipment, and be properly trained, qualified and approved in advance by ATF.

The (Agency Name) will ensure that only trained, cleared and qualified personnel operate the ATF-owned NIBIN equipment and that only trained and qualified instructors use the NIBIN equipment for the training of new personnel. Training must be conducted by ATF or ATF-authorized personnel.

Use of the NIBIN equipment will be under the management and control of the (Agency Name).

Contingent on sufficient funding, ATF agrees to provide training for users of the NIBIN equipment at the discretion of ATF.

USAGE OF NIBIN EQUIPMENT

The (Agency Name) shall enter bullets and cartridge cases related to crimes recovered by law enforcement into the NIBIN system. Because the NIBIN Program focuses on the reduction of firearms-related violent crimes such as homicides and assaults, ATF particularly encourages the (Agency Name) to enter ballistic images of evidence recovered from violent crime scenes into the NIBIN system.

ATF also encourages inclusion of all test-fired evidence from seized firearms. In addition, because certain calibers (including .25 auto, .32 auto, .380 auto, 9mm, .38/.357, 10 mm/.40 S&W, and .45 auto) make up the vast majority of crime guns, the (Agency Name) will image as much recovered and test-fired evidence from such firearms as is practical. Nothing in the MOU precludes the (Agency Name) from entering test-fired evidence from firearms of additional calibers.

COORDINATION

ATF and the (Agency Name) agree to adhere to standardized procedures and policies for collecting, handling, documenting, transporting, and preserving firearms, bullets, casings, and any similar evidence submitted for analysis and input into the NIBIN equipment.

ATF and the (Agency Name) similarly agree to adhere to standardized procedures and policies for the source data collection, input, exchange, and protection of information, to include information as to the location where ballistics evidence was collected, the circumstances under which it was collected, and all crimes to which the firearm(s) or other ballistics evidence is linked.

ATF and (Agency Name) agree to cooperate in the development and implementation of data entry protocols and quality assurance procedures for the NIBIN Program. ATF further agrees to cooperate with all participants in the NIBIN Program to establish model standards, protocols, and procedures for the users of the network equipment and system. Such protocols will be applicable as they are implemented.

The (Agency Name) will require all participating law enforcement agencies to adhere to the protocols, procedures, policies, and quality assurance standards as established above.

The (Agency Name) agrees to provide ATF with monthly reports outlining historical, statistical, and case adjudication information on the use, and results of the use, of the NIBIN equipment and the related services provided by ATF and the manufacturer of the equipment. Additionally, the (Agency Name) agrees to provide ATF with an estimate of the overall percentage of recovered and test-fired evidence available that was entered into the NIBIN system at the end of each calendar year. Such information will be gathered for the purpose of informing the law enforcement community, other Government agencies, Congress, and the public on the successes of the NIBIN Program. Additionally, ATF will use the information to attempt to collect data for results-oriented performance measures.

APPENDIX IV

LIST OF NIBIN SITES AND TYPE OF EQUIPMENT DEPLOYED TO EACH SITE

	Region	Site Name	State	Equipment Type
1	1A	ATF CA Gun Center – Los Angeles	CA	RDAS
2	1A	CA Department of Justice – Riverside	CA	RDAS
3	1A	Kern County/Bakersfield District Attorney's Office	CA	RDAS
4	1A	Las Vegas Metropolitan Police Department	NV	RDAS
5	1A	Long Beach Police Department	CA	RDAS
6	1A	Los Angeles Police Department	CA	RDAS(3) Matchpoint(5)
7	1A	Los Angeles Sheriff's Office	CA	RDAS Matchpoint
8	1A	Orange County Sheriff's Office	CA	RDAS
9	1A	San Bernardino County Sheriff's Office	CA	RDAS
10	1A	San Diego County Sheriff's Office	CA	RDAS
11	1A	San Diego Police Department	CA	RDAS
12	1A	Santa Ana Police Department	CA	RDAS Matchpoint
13	1A	Ventura County Sheriff's Office	CA	RDAS
14	1B	Washoe County Sheriff's Office	NV	RDAS
15	1B	Alameda County Laboratory	CA	RDAS
16	1B	Alaska Crime Laboratory – Anchorage	AK	RDAS
17	1B	ATF Walnut Creek Laboratory	CA	Servers(4) RDAS RBI Matchpoint(3)
18	1B	CA Department of Justice – Fresno	CA	RDAS
19	1B	CA Department of Justice – Sacramento	CA	RDAS
20	1B	Contra Costa County Sheriff's Office	CA	RDAS
21	1B	Fresno County Sheriff's Department Forensic Laboratory Unit	CA	RDAS
22	1B	Guam Police Department	GU	RDAS
23	1B	Honolulu Police Department	HI	RDAS
24	1B	Idaho State Police	ID	RDAS
25	1B	Montana Department of Justice – Missoula	MT	RDAS

	Region	Site Name	State	Equipment Type
26	1B	Oakland Police Department	CA	RDAS
27	1B	Oregon State Police Forensic Laboratory	OR	RDAS Matchpoint
28	1B	Sacramento County District Attorney's Office Laboratory of Forensic Services	CA	RDAS Matchpoint
29	1B	Salinas Police Department	CA	RDAS RBI
30	1B	San Francisco Police Department	CA	RDAS Matchpoint
31	1B	San Mateo County Sheriff's Office	CA	RDAS
32	1B	Santa Clara County District Attorney's Office	CA	RDAS Matchpoint
33	1B	Stockton Police Department	CA	RDAS Matchpoint
34	1B	U.S. Fish & Wildlife Service – Ashland	OR	RDAS
35	1B	Washington State Patrol – Seattle	WA	RDAS
36	1B	Washington State Patrol – Spokane	WA	RDAS
37	1B	Washington State Patrol – Tacoma	WA	RDAS Matchpoint
38	2	Austin Police Department	TX	RDAS
39	2	Bexar County Crime Laboratory	TX	RDAS
40	2	Corpus Christi Police Department	TX	RDAS
41	2	Fort Bend County Sheriff's Office	TX	RDAS
42	2	Ft. Worth Police Department	TX	RDAS
43	2	Harris County Sheriff's Office	TX	RDAS Matchpoint
44	2	Houston Police Department	TX	RDAS(2) Matchpoint
45	2	Jefferson County Sheriff's Office	TX	RDAS
46	2	Montgomery County Sheriff's Office	TX	RDAS
47	2	Oklahoma City Police Department	OK	RDAS
48	2	Oklahoma State Bureau of Investigation	OK	RDAS
49	2	Pasadena Police Department	TX	RDAS
50	2	Plano Texas Police Department	TX	RDAS
51	2	SW Institute of Forensic Sciences – Dallas	TX	RDAS
52	2	Texas Department of Public Safety – Austin	TX	RDAS Matchpoint
53	2	Texas Department of Public Safety – El Paso	TX	RDAS

	Region	Site Name	State	Equipment Type
54	2	Texas Department of Public Safety – Lubbock	TX	RDAS
55	2	Texas Department of Public Safety – McAllen	TX	RDAS
56	2	Texas Department of Public Safety – Tyler	TX	RDAS
57	2	Tulsa Police Department	OK	RDAS
58	3	Alabama Department of Forensic Sciences – Birmingham	AL	RDAS
59	3	Alabama Department of Forensic Sciences – Huntsville	AL	RDAS
60	3	Alabama Department of Forensic Sciences – Mobile	AL	RDAS
61	3	Alabama Department of Forensic Sciences – Montgomery	AL	RDAS
62	3	ATF Laboratory – Atlanta	GA	Servers(3) RDAS RBI Matchpoint(3)
63	3	Birmingham Police Department	AL	RDAS Matchpoint
64	3	Broward County Sheriff's Office	FL	RDAS Matchpoint
65	3	Florida Department of Law Enforcement – Jacksonville	FL	RDAS
66	3	Florida Department of Law Enforcement – Orlando	FL	RDAS(2) Matchpoint(2)
67	3	Florida Department of Law Enforcement – Pensacola	FL	RDAS
68	3	Florida Department of Law Enforcement – Tallahassee	FL	RDAS
69	3	Florida Department of Law Enforcement – Tampa	FL	RDAS(2) Matchpoint(2)
70	3	Georgia Bureau of Investigation – Decatur	GA	RDAS RBI
71	3	Georgia Bureau of Investigation – Savannah	GA	RDAS
72	3	Indian River Laboratory – Ft. Pierce	FL	RDAS
73	3	Miami-Dade Police Department	FL	RDAS(2) Matchpoint(2)
74	3	Palm Beach County Sheriff's Office	FL	RDAS
75	3	Puerto Rico Institute of Forensic Sciences	PR	RDAS Matchpoint

	Region	Site Name	State	Equipment Type
76	3	U.S. Army Laboratory – Atlanta	GA	RDAS
77	3	Valdosta Police Department	GA	RDAS
78	3	Virgin Islands Police Department	VI	RDAS
79	3A	Charleston County Sheriff's Office	SC	RDAS
80	3A	Charlotte Police Department	NC	RDAS
81	3A	Cumberland County Sheriff's Office	NC	RDAS
82	3A	Greensboro Police Department	NC	RDAS
83	3A	Greenville Police Department	NC	RDAS
84	3A	Hickory Police Department	NC	RDAS
85	3A	Knoxville Police Department	TN	RDAS
86	3A	Metropolitan Police Department – Nashville	TN	RDAS Matchpoint
87	3A	New Hanover County Sheriff's Office	NC	RDAS
88	3A	North Carolina State Bureau of Investigation	NC	RDAS Matchpoint(2)
89	3A	South Carolina State Law Enforcement – Columbia	SC	RDAS Matchpoint
90	3A	Tennessee Bureau of Investigation – Memphis	TN	RDAS Matchpoint
91	3A	Tennessee Bureau of Investigation – Nashville	TN	RDAS
92	4	Allegheny County Coroner's Office Forensic Laboratory Division	PA	RDAS Matchpoint
93	4	Bergen County Sheriff’s Office	NJ	RDAS
94	4	Connecticut State Forensic Science Laboratory – Meriden	CT	RDAS Matchpoint
95	4	Erie County Forensic Laboratory	NY	RDAS Matchpoint
96	4	Essex County Sheriff's Office	NJ	RDAS Matchpoint
97	4	Hamilton NJ State Police	NJ	RDAS Matchpoint
98	4	Monroe County Department of Public Safety	NY	RDAS Matchpoint
99	4	Nassau County Police – Mineola	NY	RDAS
100	4	New York State Police – Albany	NY	RDAS
101	4	Newark Police Department	NJ	RDAS
102	4	Onondaga County Center for Forensic Sciences	NY	RDAS
103	4	Pennsylvania State Police – Bethlehem	PA	RDAS

	Region	Site Name	State	Equipment Type
104	4	Pennsylvania State Police – Greenburg	PA	RDAS
105	4	Pennsylvania State Police – Harrisburg	PA	RDAS Matchpoint
106	4	Philadelphia Police Department	PA	RDAS Matchpoint
107	4	Somerset County Prosecutor's Office	NJ	RDAS RBI
108	4	Suffolk County Laboratory	NY	RDAS
109	4	Westchester County Department of Public Safety	NY	RDAS
110	5	Illinois State Police – Carbondale	IL	RDAS
111	5	Illinois State Police – Chicago	IL	RDAS(3) Matchpoint(3)
112	5	Illinois State Police – Fairview Heights	IL	RDAS
113	5	Illinois State Police – Joliet	IL	RDAS
114	5	Illinois State Police – Morton	IL	RDAS
115	5	Illinois State Police – Rockford	IL	RDAS
116	5	Illinois State Police – Springfield	IL	RDAS
117	5	Indiana State Police – Evansville	IN	RDAS
118	5	Indiana State Police – Fort Wayne	IN	RDAS
119	5	Indiana State Police – Lowell	IN	RDAS
120	5	Indiana State Police – General HQ Laboratory	IN	RDAS Matchpoint
121	5	Indianapolis/Marion Co. Forensic Laboratory	IN	RDAS Matchpoint
122	5	Iowa Division of Criminal Investigation	IA	RDAS
123	5	Johnson County Sheriff's Office	KS	RDAS
124	5	Kansas Bureau of Investigation – Topeka	KS	RDAS
125	5	Kansas Bureau of Investigation – Kansas City Community College	KS	RDAS Matchpoint
126	5	Kansas City Police Department	MO	RDAS
127	5	Lake County Crime Laboratory	IN	RDAS
128	5	Missouri State Highway Patrol – Jefferson City	MO	RDAS
129	5	Nebraska State Patrol Crime Laboratory – Lincoln	NE	RDAS
130	5	Northern Illinois Police Crime Lab	IL	RDAS
131	5	Omaha Police Department Crime Laboratory	NE	RDAS Matchpoint

	Region	Site Name	State	Equipment Type
132	5	Sedgwick County Forensic Science Center	KS	RDAS
133	5	South Bend Police Department	IN	RDAS
134	5	St. Louis County Police Department Crime Laboratory – Clayton	MO	RDAS
135	5	St. Louis Metropolitan Police Department	MO	RDAS
136	6	ATF Ammendale Lab	MD	Servers(5) Test Server RDAS(2) Matchpoint(3) RBI
137	6	Baltimore County Police Department	MD	RDAS
138	6	Baltimore City Police Department	MD	RDAS(2) Matchpoint(2)
139	6	Canton/Stark County Crime Laboratory	OH	RDAS
140	6	Cleveland Police Department	OH	RDAS
141	6	Columbus Police Department	OH	RDAS Matchpoint
142	6	FBI Laboratory – Quantico	VA	RDAS
143	6	Hamilton County Coroner's Laboratory – Cincinnati	OH	RDAS
144	6	Lake County Regional Laboratory	OH	RDAS
145	6	Miami Valley Regional Crime Laboratory	OH	RDAS
146	6	Maryland State Police	MD	RDAS
147	6	Metropolitan Police Department	DC	RDAS Matchpoint
148	6	Ohio Bureau of Criminal Identification – Bowling Green	OH	RDAS
149	6	Ohio Bureau of Criminal Identification – London	OH	RDAS
150	6	Ohio Bureau of Criminal Identification – Richfield	OH	RDAS
151	6	Prince George's County Police Department	MD	RDAS
152	6	Virginia Department of Forensic Science – Eastern Laboratory – Norfolk	VA	RDAS Matchpoint
153	6	Virginia Department of Forensic Science – Northern Laboratory – Fairfax	VA	RDAS

	Region	Site Name	State	Equipment Type
154	6	Virginia Department of Forensic Science – Richmond	VA	RDAS Matchpoint
155	6	Virginia Department of Forensic Science – Roanoke	VA	RDAS
156	6	West Virginia State Police – Charleston	WV	RDAS
157	6	Wilmington Police Department	DE	RDAS
158	7	Office of the Attorney General, Division of Investigation – Pierre	SD	RDAS
159	7	Battle Creek Police Department	MI	RDAS
160	7	Bureau of Criminal Apprehension Forensic Science Laboratory – Bemidji	MN	RDAS
161	7	Bureau of Criminal Apprehension Forensic Science Laboratory – St. Paul	MN	RDAS
162	7	Detroit Police Department	MI	RDAS Matchpoint(2)
163	7	Hennepin County Sheriff's Office	MN	RDAS
164	7	Michigan State Police – Northville	MI	RDAS
165	7	Michigan State Police – Sterling Heights	MI	RDAS
166	7	Michigan State Police – Bridgeport	MI	RDAS
167	7	Michigan State Police – East Lansing	MI	RDAS
168	7	Michigan State Police – Grand Rapids	MI	RDAS
169	7	Michigan State Police – Grayling	MI	RDAS
170	7	Minneapolis Police Department	MN	RDAS
171	7	North Dakota Department of Health Forensic Laboratory – Bismarck	ND	RDAS
172	7	Oakland County Sheriff's Department	MI	RDAS
173	7	Wisconsin Department of Justice – Milwaukee	WI	RDAS
174	7	Wisconsin State Patrol – Milwaukee	WI	RDAS Matchpoint
175	8	Albuquerque Police Department	NM	RDAS
176	8	Arizona Department of Public Safety at Phoenix	AZ	RDAS
177	8	Arizona Department of Public Safety at Tucson	AZ	RDAS
178	8	Cheyenne State Laboratory	WY	RDAS
179	8	Colorado Bureau of Investigation at Denver	CO	RDAS
180	8	Colorado Bureau of Investigation at Montrose	CO	RDAS

	Region	Site Name	State	Equipment Type
181	8	Colorado Bureau of Investigation at Pueblo	CO	RDAS
182	8	Denver Police Department	CO	RDAS
183	8	Maricopa County Sheriff	AZ	RDAS
184	8	Mesa Police Department	AZ	RDAS
185	8	New Mexico Department of Public Safety – Santa Fe	NM	RDAS
186	8	Northern UT Laboratory – Ogden	UT	RDAS
187	8	Phoenix Police Department	AZ	RDAS
188	8	Tucson Police Department	AZ	RDAS
189	9	Acadiana Criminalistic Laboratory	LA	RDAS
190	9	Arkansas State Crime Laboratory	AR	RDAS
191	9	Jefferson Parish Laboratory – Metairie	LA	RDAS
192	9	Louisiana State Crime Laboratory – Shreveport	LA	RDAS
193	9	Louisiana State Police – Baton Rouge	LA	RDAS
194	9	Mississippi Department of Public Safety – Biloxi	MS	RDAS
195	9	Mississippi Department of Public Safety – Jackson	MS	RDAS
196	9	New Orleans Police Department	LA	RDAS Matchpoint(2)
197	9	Southwest Louisiana Laboratory – Lake Charles	LA	RDAS
198	9	St. Tammany Parish Sheriff's Office	LA	RDAS
199	10	Boston Police Department	MA	RDAS Matchpoint(3)
200	10	Maine State Police	ME	RDAS
201	10	Massachusetts State Police – Sturbridge	MA	RDAS
202	10	Massachusetts State Police – Danvers	MA	RDAS
203	10	Massachusetts State Police – Sudbury	MA	RDAS
204	10	New Hampshire State Police Forensic Laboratory	NH	RDAS
205	10	Rhode Island State Crime Laboratory	RI	RDAS
206	10	Vermont Department of Public Safety – Waterbury	VT	RDAS
207	1A	San Bernardino Police Department	CA	RBI
208	2	Arlington Police Department	TX	RBI
209	2	Dallas Police Department	TX	RBI
210	2	Garland Police Department	TX	RBI
211	2	Wichita Falls Police Department	TX	RBI

	Region	Site Name	State	Equipment Type
212	3	Orange County Sheriff's Office	FL	RBI
213	3	Puerto Rico Institute of Forensic Sciences – Aquadilla	PR	RBI
214	3	Puerto Rico Institute of Forensic Sciences – Arecibo	PR	RBI
215	3	Puerto Rico Institute of Forensic Sciences – Ponce	PR	RBI
216	3A	Guilford County	NC	RBI
217	3A	High Point Police Department	NC	RBI
218	3A	Greenville County Sheriff's Office	SC	RBI
219	3A	Chattanooga Police Department	TN	RBI
220	4	Waterbury Police Department	CT	RBI
221	4	Passaic County Sheriff's Office	NJ	RBI
222	4	Paterson Police Department	NJ	RBI
223	4	Union County Department of Public Safety	NJ	RBI
224	5	Southeast Missouri Cape Girardeau Laboratory	MO	RBI
225	5	Lincoln Police Department	NE	RBI
226	6	Youngstown Police Department	OH	RBI
227	8	Arizona Department of Public Safety – Flagstaff	AZ	RBI
228	8	Colorado Springs Police Department	CO	RBI
229	9	North Louisiana Crime Laboratory – Alexandria	LA	RBI
230	9	North Delta West Monroe	LA	RBI
231	9	Jackson Police Department	MS	RBI

APPENDIX V

PROCESS USED BY THE ATF TO IDENTIFY SITES WHERE IBIS EQUIPMENT WAS DEPLOYED

After deciding to combine the redundant ATF and FBI ballistic imaging systems into a single system, both agencies worked to create a national deployment schedule for NIBIN. Prior to the deployment, some state and local law enforcement agencies participated in the ATF's IBIS program, while others participated in the FBI's DRUGFIRE program. Under the NIBIN program, partner agencies received either upgraded equipment and software or new equipment and software.

The sites were selected to receive equipment based on such factors as population, rate of violent crime, and demonstration of commitment to ballistic technology through the past use of IBIS or DRUGFIRE equipment. Through this preliminary deployment plan, site surveys were conducted at each agency scheduled to receive equipment to ensure that the type of equipment sent matched the needs and capabilities of the receiving agency. The ATF's NIBIN contractor conducted site visits and met with upper management from the partner agencies. The contractor used a site survey to obtain information to deliver and install the IBIS equipment. The contractor also discussed the responsibilities of each agency and provided a copy of the MOU that was to be executed between the ATF and each partner agency. The contractor also provided each partner agency with the technical requirements that the facility needed to meet before the IBIS equipment could be provided. Finally, the contractor coordinated with local ATF personnel and each partner agency's staff on the details of deploying the equipment and coordinating the necessary training.

In addition to distributing the IBIS equipment to the participants under the IBIS and DRUGFIRE programs, other state and local agencies also could request to participate in the NIBIN program. To do so, the agencies were required to submit a letter signed by an agency executive on agency letterhead to the attention of the NIBIN Program Director that included:

- the population of the area to be served by automated ballistics technology,
- the number of firearms-related violent crimes in the area serviced by the requesting agency,
- statistics on firearms-related assaults and homicides for the previous year,

- the number of firearms recovered by the requesting agency for the previous year,

- the number of firearms traced by the requesting agency during the previous year,

- whether the requesting agency had a firearms/toolmark examiner,

- whether the requesting agency would dedicate staff to support the data entry of ballistics information into the IBIS equipment,

- whether the requesting agency had a bullet and casing recovery system,

- whether the requesting agency had sufficient space that was climate controlled for placement of the equipment,

- whether the agency would allow other agencies access to the IBIS equipment if the requesting agency received it, and

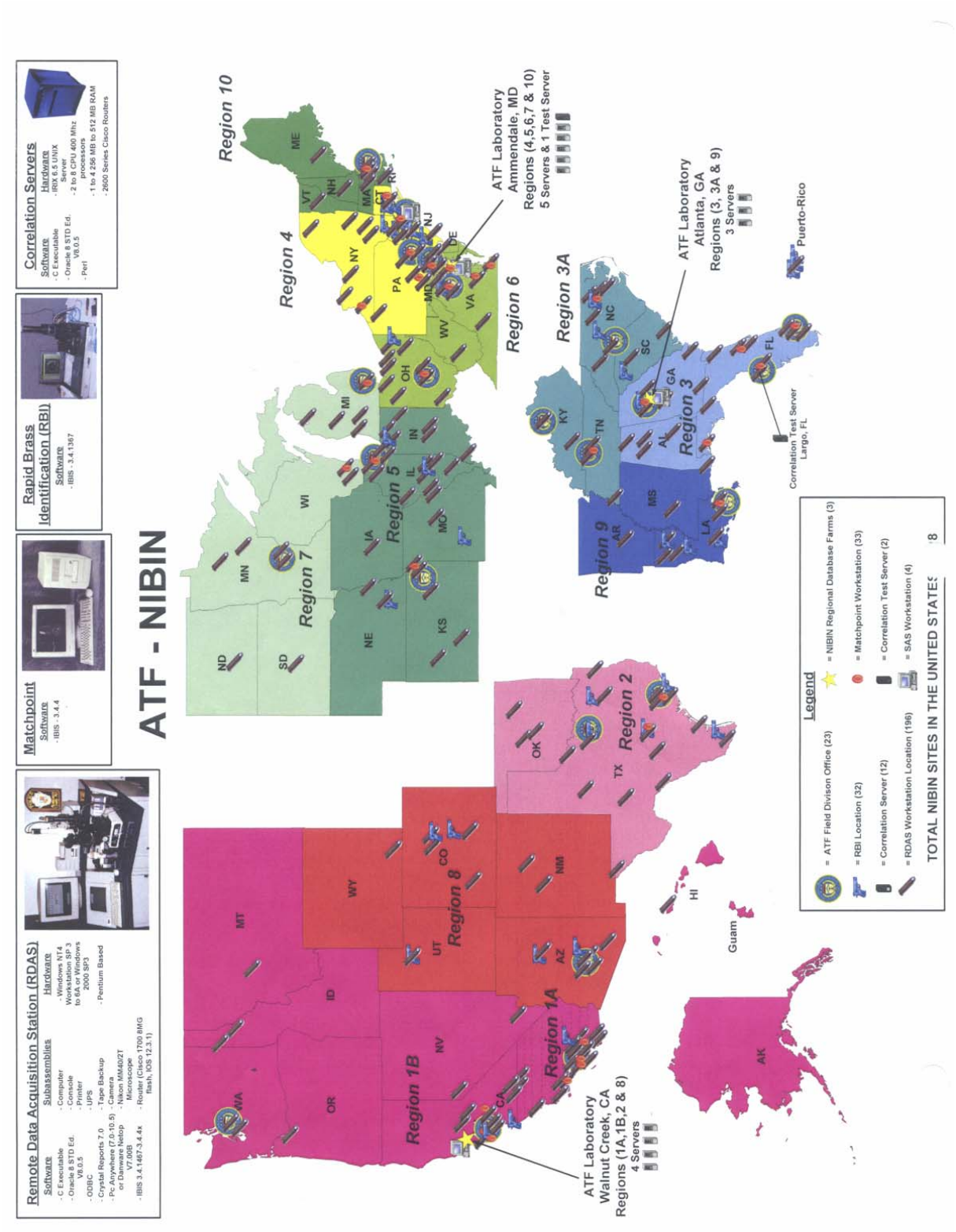
- whether the agency would enter into a MOU with the ATF regarding the administration of the program.

The ATF evaluated each request on a case-by-case basis to determine whether the request would be approved.

APPENDIX VI

MAP OF NIBIN REGIONS

Source: ATF



APPENDIX VII

DIAGRAMS OF PARTITIONS CONTAINED ON NIBIN SERVERS

Source: Documents Provided by the ATF

Region 1A Server

ATF Lab
Walnut Creek, CA

Southern Partition

San Diego PD
RDAS

San Diego Co SO
RDAS

Central Partition

ATF Gun Center, LA
RDAS

CA Dept. of Justice Riverside
RDAS

Las Vegas Metro PD
RDAS

Long Beach PD
RDAS

Los Angeles PD
RDAS (3)
Matchpoint (5)

Los Angeles SO
RDAS
Matchpoint

Orange Co SO
RDAS

Santa Ana PD
RDAS
Matchpoint

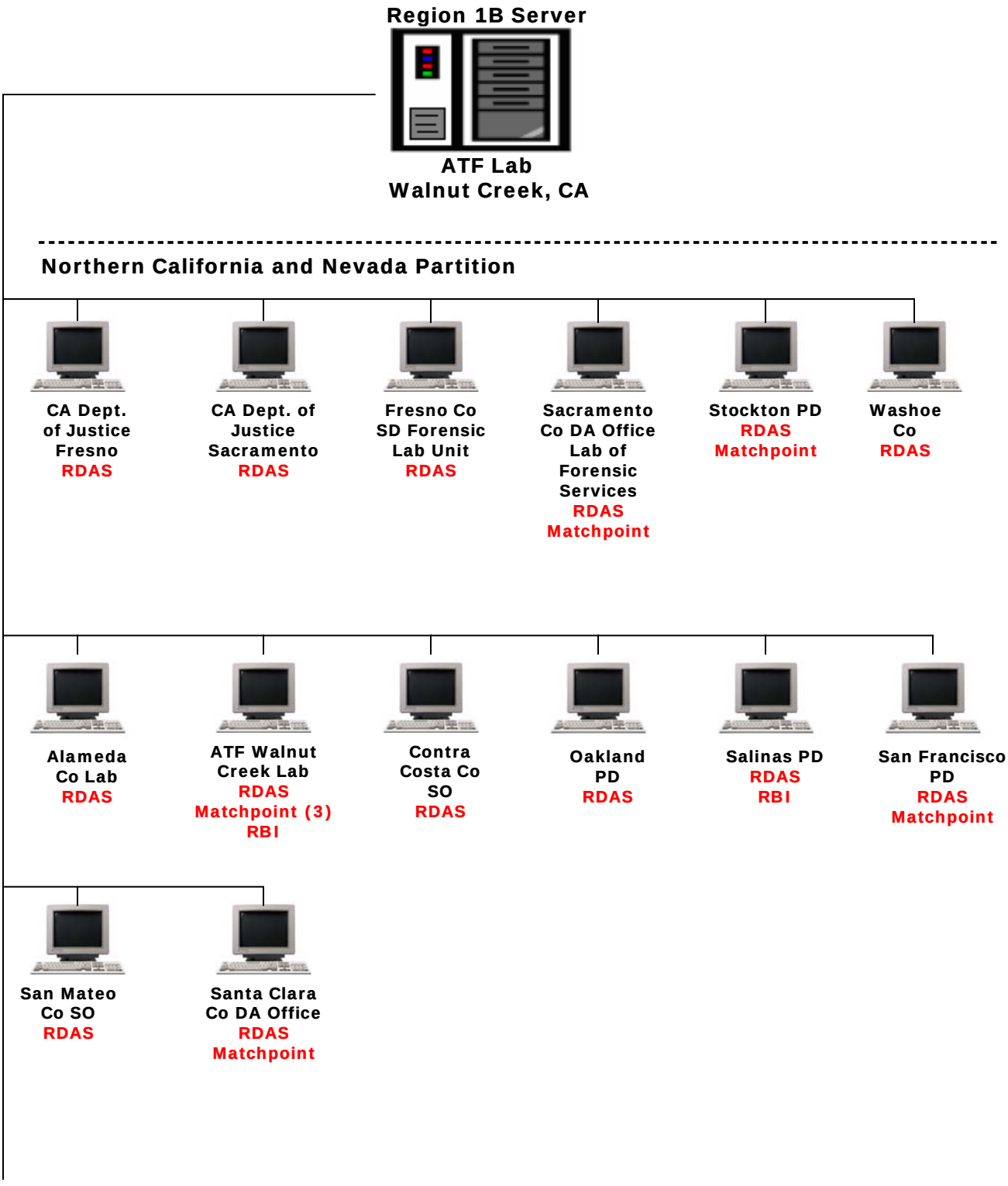
San Bernardino Co SO Office of Science Invest. Division
RDAS

San Bernardino PD RBI

Northern Partition

Ventura Co SO
RDAS

Kern Co/ Bakersfield DA Office
RDAS



Region 1B
Continued
On Next Page

Region 1B Server (Cont.)

ATF Lab
Walnut Creek, CA

Oregon, Idaho, Washington, & Montana Partition

Idaho State Police
RDAS

Montana DOJ
RDAS

Oregon State Police Forensic Lab
RDAS
Matchpoint

U.S. Fish & Wildlife Ashland
RDAS

Washington State Patrol Seattle
RDAS

Washington State Patrol Tacoma
RDAS
Matchpoint

Washington State Patrol Spokane
RDAS

Alaska Partition

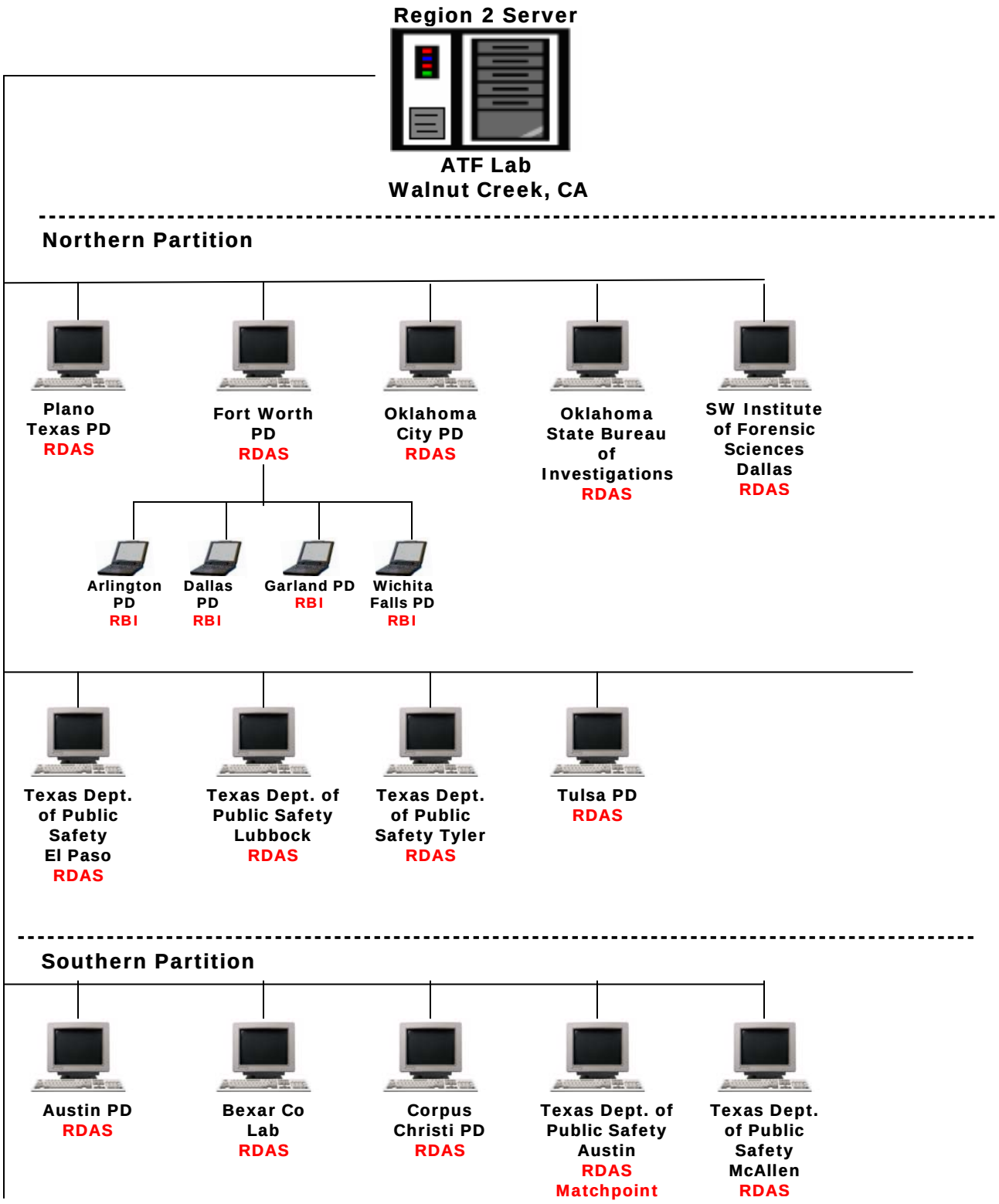
Alaska Crime Lab Anchorage
RDAS

Hawaii Partition

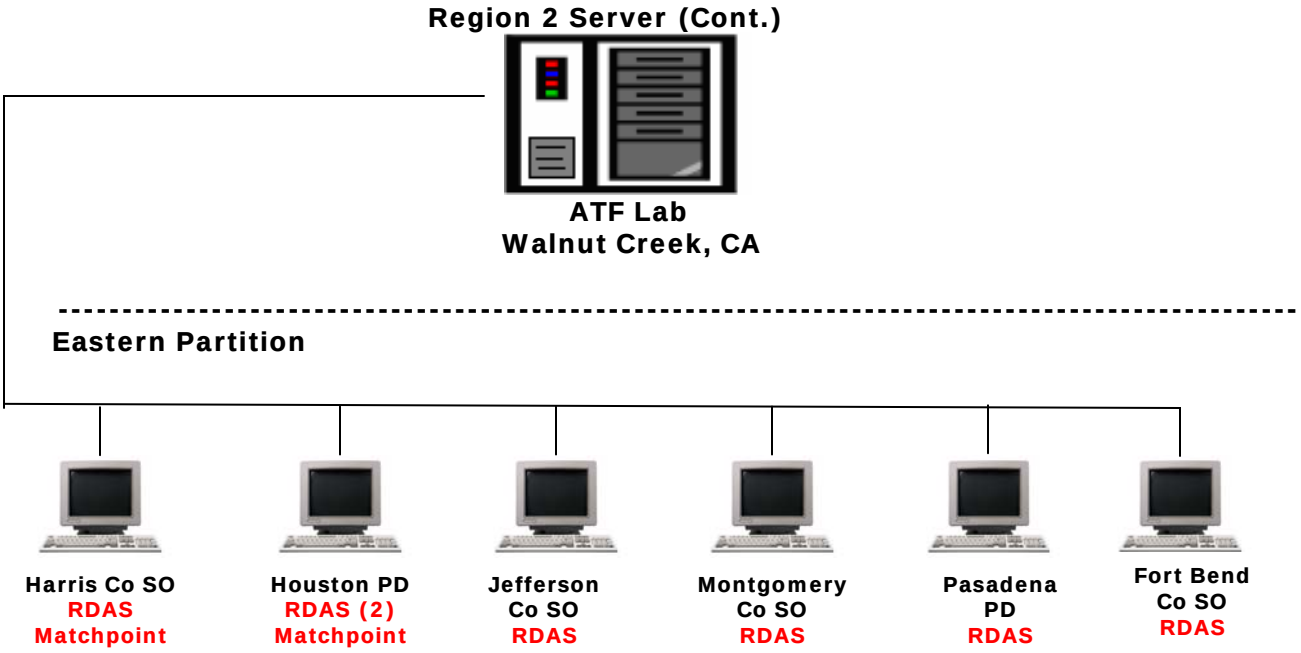
Honolulu PD
RDAS

Micronesia Partition

Guam PD
RDAS



Region 2
Continued
On Next Page


Region 2 Server (Cont.)
ATF Lab
Walnut Creek, CA
Eastern Partition
Harris Co SO
RDAS
Matchpoint
Houston PD
RDAS (2)
Matchpoint
Jefferson
Co SO
RDAS
Montgomery
Co SO
RDAS
Pasadena
PD
RDAS
Fort Bend
Co SO
RDAS

Region 3 Server

ATF Lab
Atlanta, GA

South Florida Partition

Broward Co SO
RDAS
Matchpoint

Palm Beach Co SO
RDAS

Miami-Dade PD
RDAS (2)
Matchpoint (2)

Indian River Lab
Ft. Pierce
RDAS

North Florida Partition

Florida Dept. of Law Enforcement
Jacksonville
RDAS

Florida Dept. of Law Enforcement
Tallahassee
RDAS

Florida Dept. of Law Enforcement
Pensacola
RDAS

Florida Dept. of Law Enforcement
Tampa
RDAS (2)
Matchpoint (2)

Florida Dept. of Law Enforcement
Orlando
RDAS (2)
Matchpoint (2)

Orange County SO
RBI

Georgia Partition

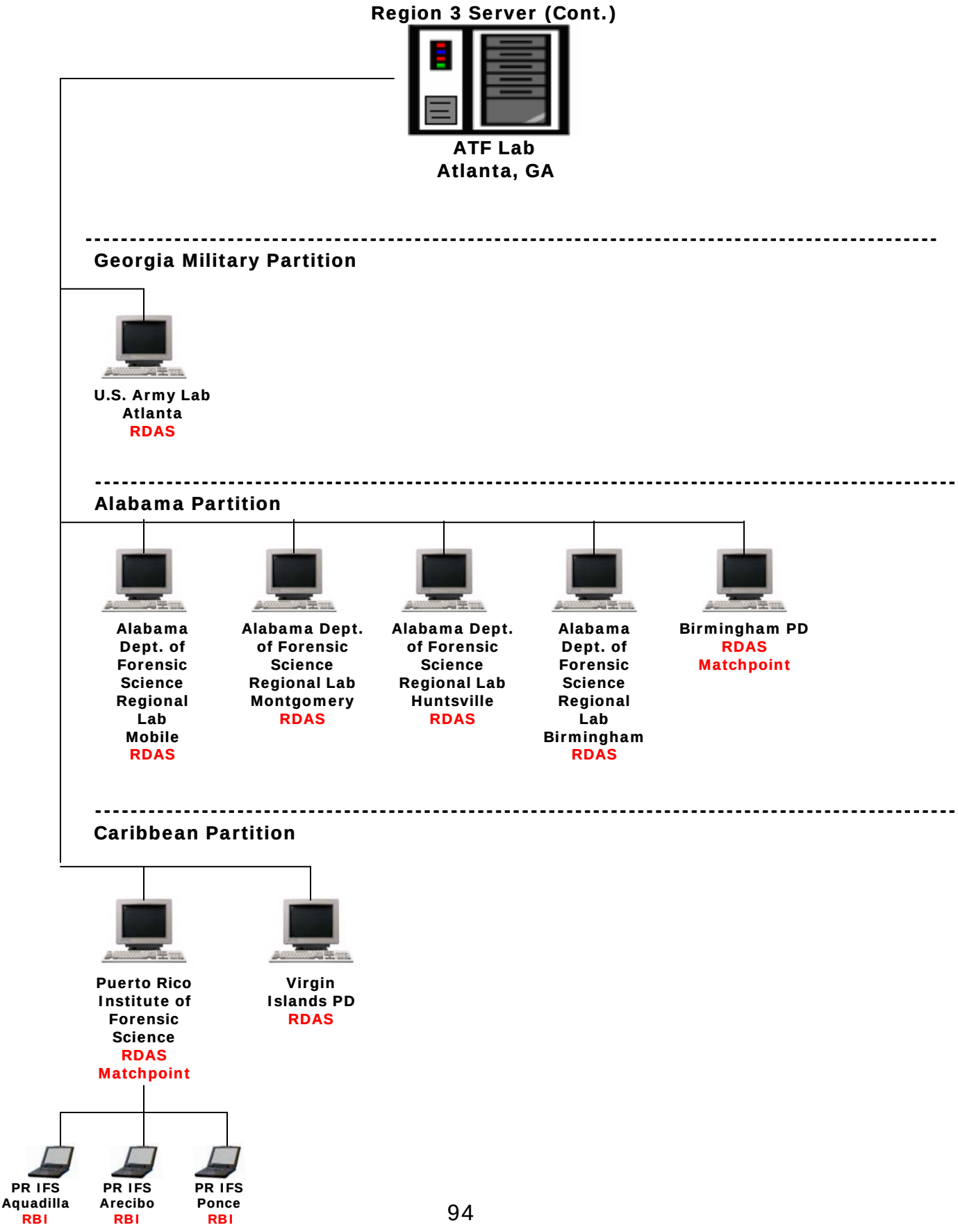
Valdosta Police Dept.
RDAS

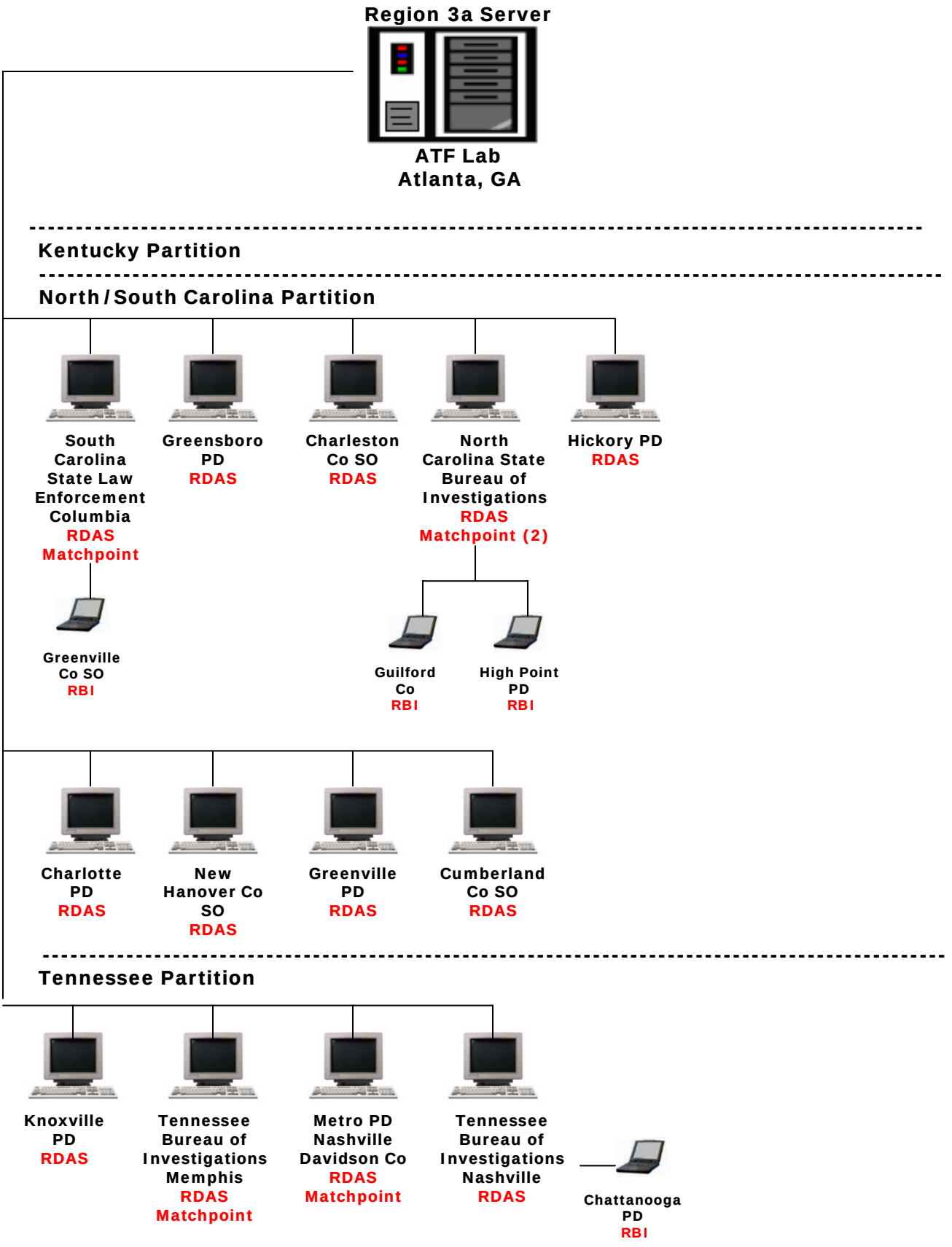
Georgia Bureau of Investigations
Decatur
RDAS
RBI

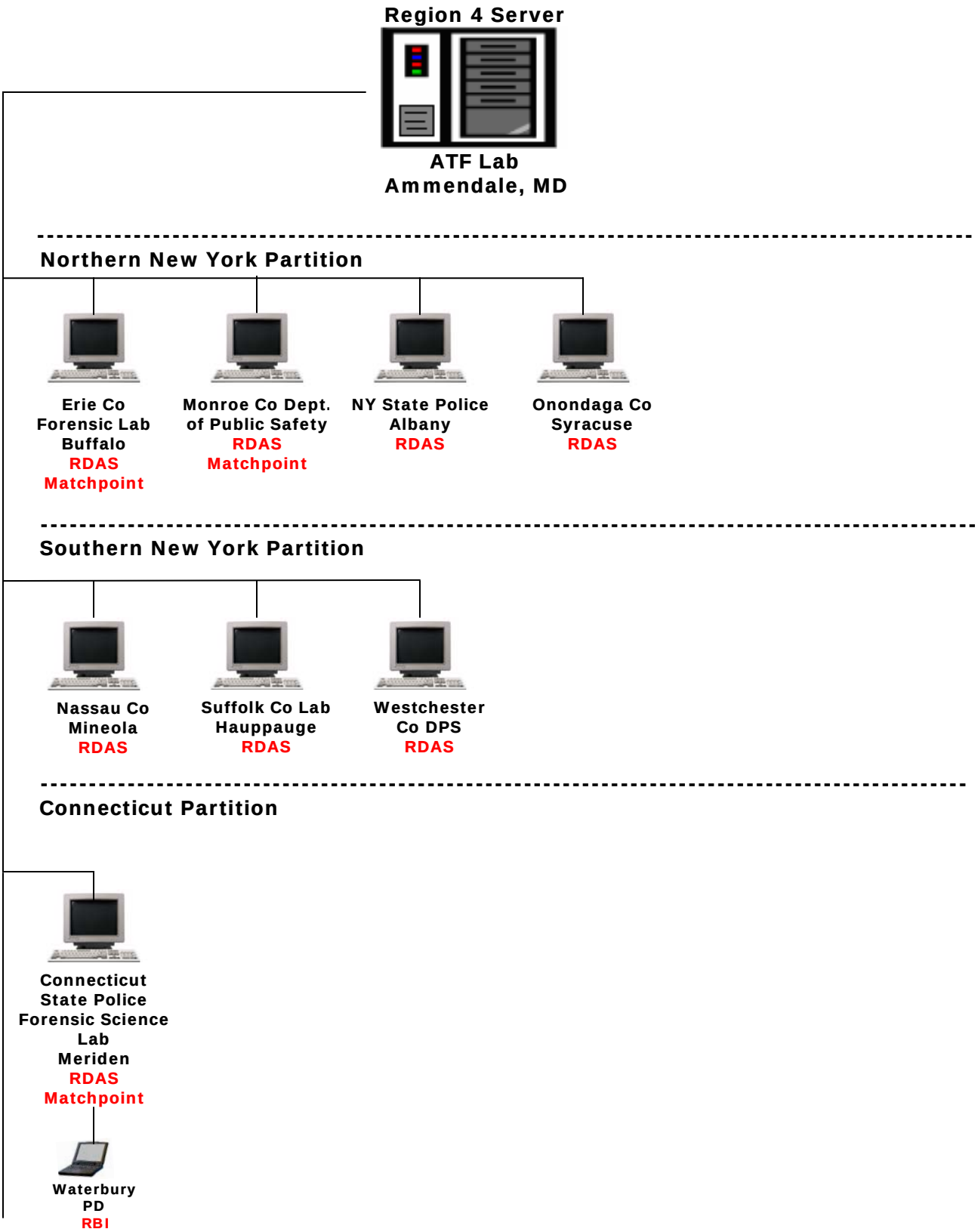
Georgia Bureau of Investigations
Savannah
RDAS

ATF Lab
Atlanta
RDAS
RBI
Matchpoint (3)

Region 3 Continued On Next Page


Region 3 Server (Cont.)
ATF Lab
Atlanta, GA
Georgia Military Partition
U.S. Army Lab
Atlanta
RDAS
Alabama Partition
Alabama Dept. of Forensic Science Regional Lab Mobile
RDAS
Alabama Dept. of Forensic Science Regional Lab Montgomery
RDAS
Alabama Dept. of Forensic Science Regional Lab Huntsville
RDAS
Alabama Dept. of Forensic Science Regional Lab Birmingham
RDAS
Birmingham PD
RDAS
Matchpoint
Caribbean Partition
Puerto Rico Institute of Forensic Science
RDAS
Matchpoint
Virgin Islands PD
RDAS
PR IFS Aquadilla
RBI
PR IFS Arecibo
RBI
PR IFS Ponce
RBI


Region 3a Server
ATF Lab
Atlanta, GA
Kentucky Partition
North/South Carolina Partition
South Carolina State Law Enforcement Columbia
RDAS
Matchpoint
Greensboro PD
RDAS
Charleston Co SO
RDAS
North Carolina State Bureau of Investigations
RDAS
Matchpoint (2)
Hickory PD
RDAS
Greenville Co SO
RBI
Guilford Co
RBI
High Point PD
RBI
Charlotte PD
RDAS
New Hanover Co SO
RDAS
Greenville PD
RDAS
Cumberland Co SO
RDAS
Tennessee Partition
Knoxville PD
RDAS
Tennessee Bureau of Investigations Memphis
RDAS
Matchpoint
Metro PD Nashville Davidson Co
RDAS
Matchpoint
Tennessee Bureau of Investigations Nashville
RDAS
Chattanooga PD
RBI



Region 4
Continued
On Next Page

Region 4 Server (Cont.)

ATF Lab
Ammendale, MD

New Jersey Partition

Bergen County
RDAS

Essex Co SO
RDAS
Matchpoint

Hamilton NJ State Police
RDAS
Matchpoint

Newark PD
RDAS

Somerset Co Prosecutor's Office
RDAS
RBI

Passaic Co SO
RBI

Union Co DPS
RBI

Paterson PD
RBI

Pennsylvania Partition

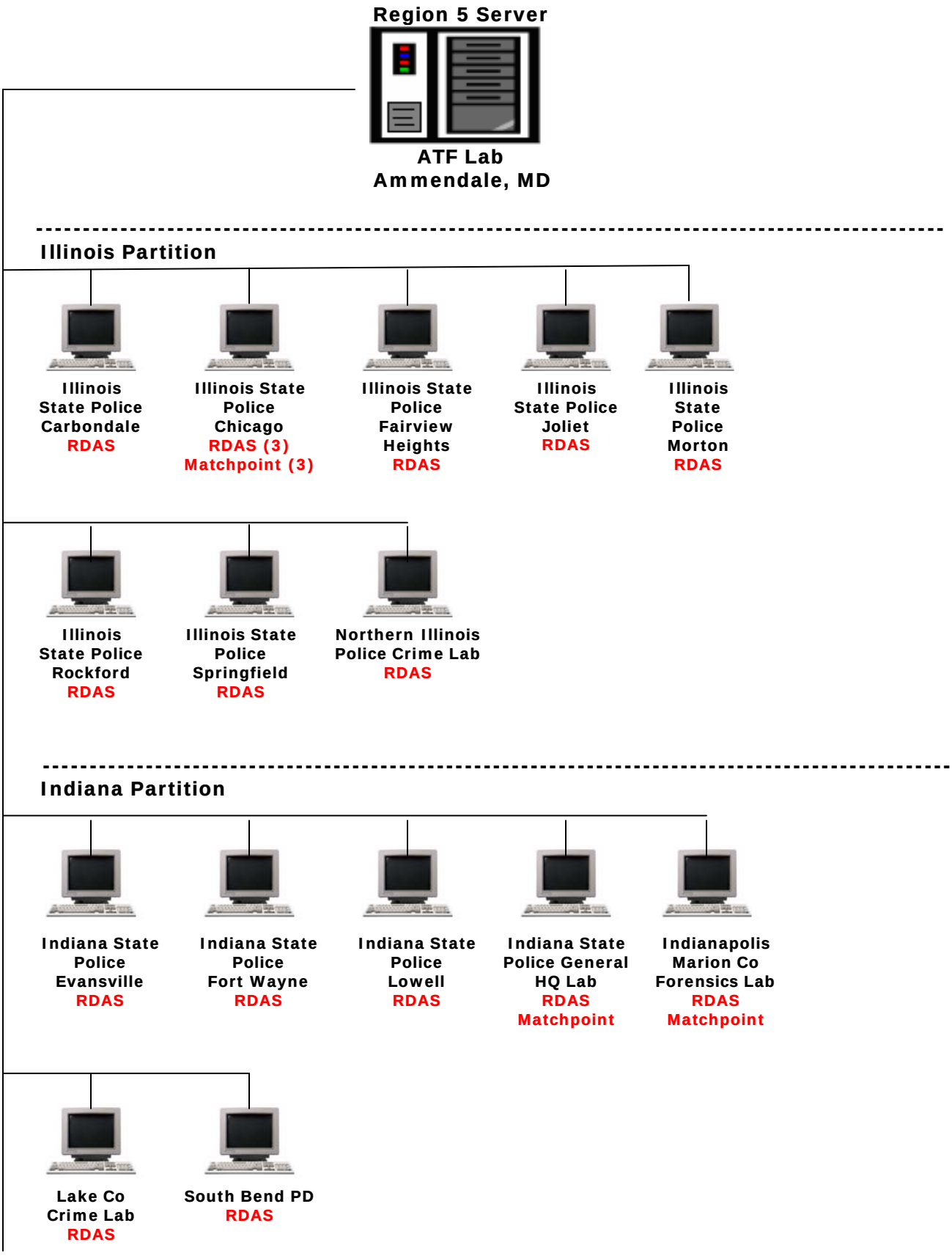
Allegheny Co Coroner's Office
RDAS
Matchpoint

Pennsylvania State Police Bethlehem
RDAS

Pennsylvania State Police Harrisburg
RDAS
Matchpoint

Pennsylvania State Police Greenburg
RDAS

Philadelphia PD
RDAS
Matchpoint



Region 5 Continued On Next Page

Region 5 Server (Cont.)

ATF Lab
Ammendale, MD

Iowa and Nebraska Partition

Iowa Division of Criminal Investigations
Des Moines
RDAS

Nebraska State Patrol Crime Lab
Lincoln
RDAS

Lincoln PD
RBI

Omaha PD
RDAS
Matchpoint

Kansas Partition

Johnson Co SO
RDAS

KBI Topeka
RDAS

KBI Kansas City Community College
RDAS
Matchpoint

Kansas City PD
RDAS

Sedgwick County
RDAS

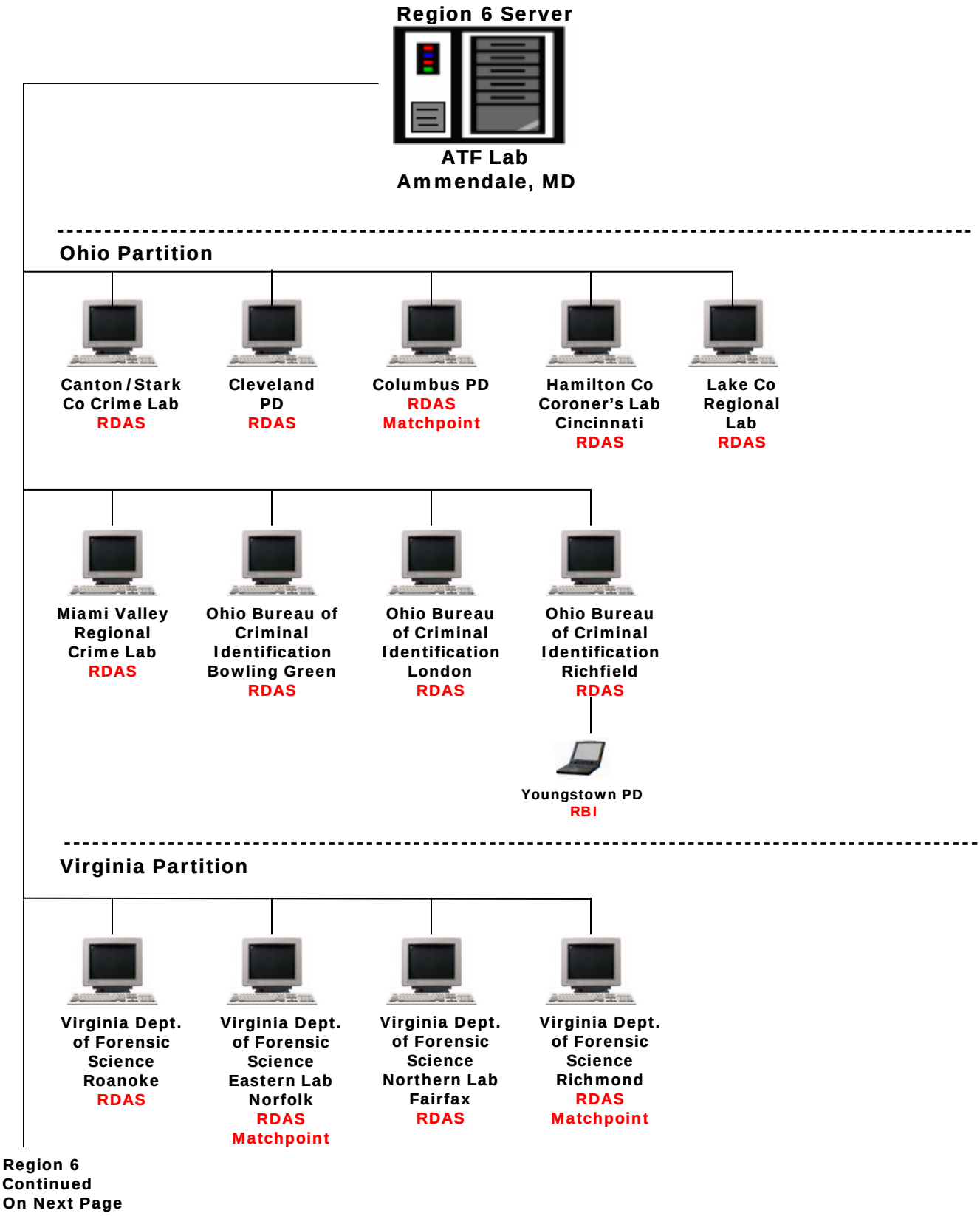
Missouri Partition

Missouri State Highway Patrol
Jefferson City
RDAS

St. Louis Co PD Crime Lab
Clayton
RDAS

St. Louis Metro PD
RDAS

SE Missouri
Cape Girardeau
RBI



Region 6
Continued
On Next Page

Region 6 Server (Cont.)

ATF Lab
Ammendale, MD

Delaware, Maryland, DC Partition

ATF Ammendale Lab
RDAS (2)
Matchpoint (3)
RBI

Baltimore Co PD
RDAS

Baltimore PD
RDAS (2)
Matchpoint (2)

Maryland State Police Pikesville
RDAS

Metropolitan PD
RDAS
Matchpoint

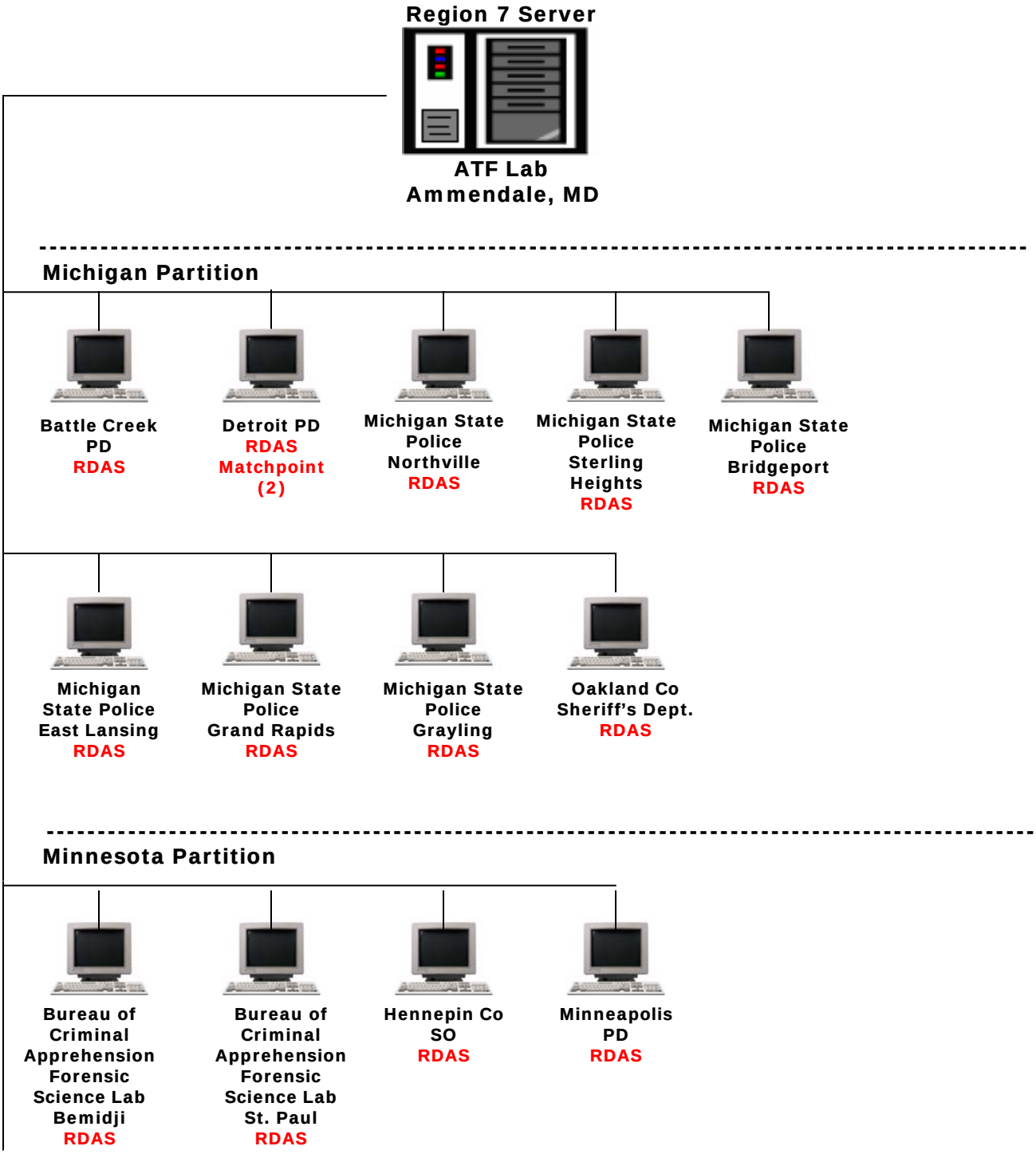
FBI Lab Quantico
RDAS

Prince George's Co PD
RDAS

Wilmington PD
RDAS

West Virginia Partition

WV State Police
RDAS



Region 7
Continued
On Next Page

Region 7 Server (Cont.)

ATF Lab
Ammendale, MD

North Dakota Partition

North Dakota Dept. of Health Forensic Lab Bismarck
RDAS

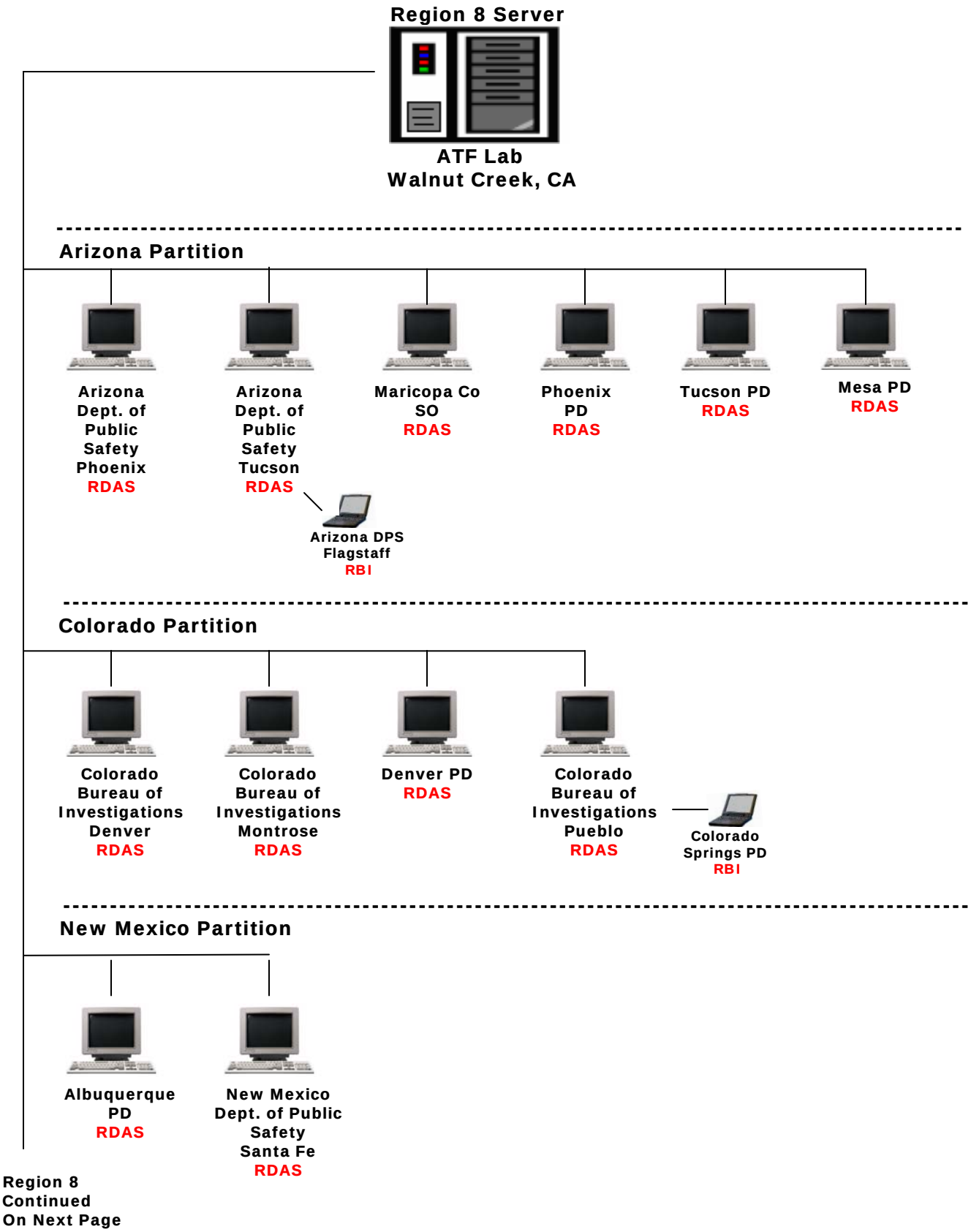
South Dakota Partition

Office of the Attorney General Pierre
RDAS

Wisconsin Partition

Wisconsin Dept. of Justice Milwaukee
RDAS

Wisconsin State Patrol Milwaukee
RDAS
Matchpoint



Region 8
Continued
On Next Page

Region 8 Server (Cont.)

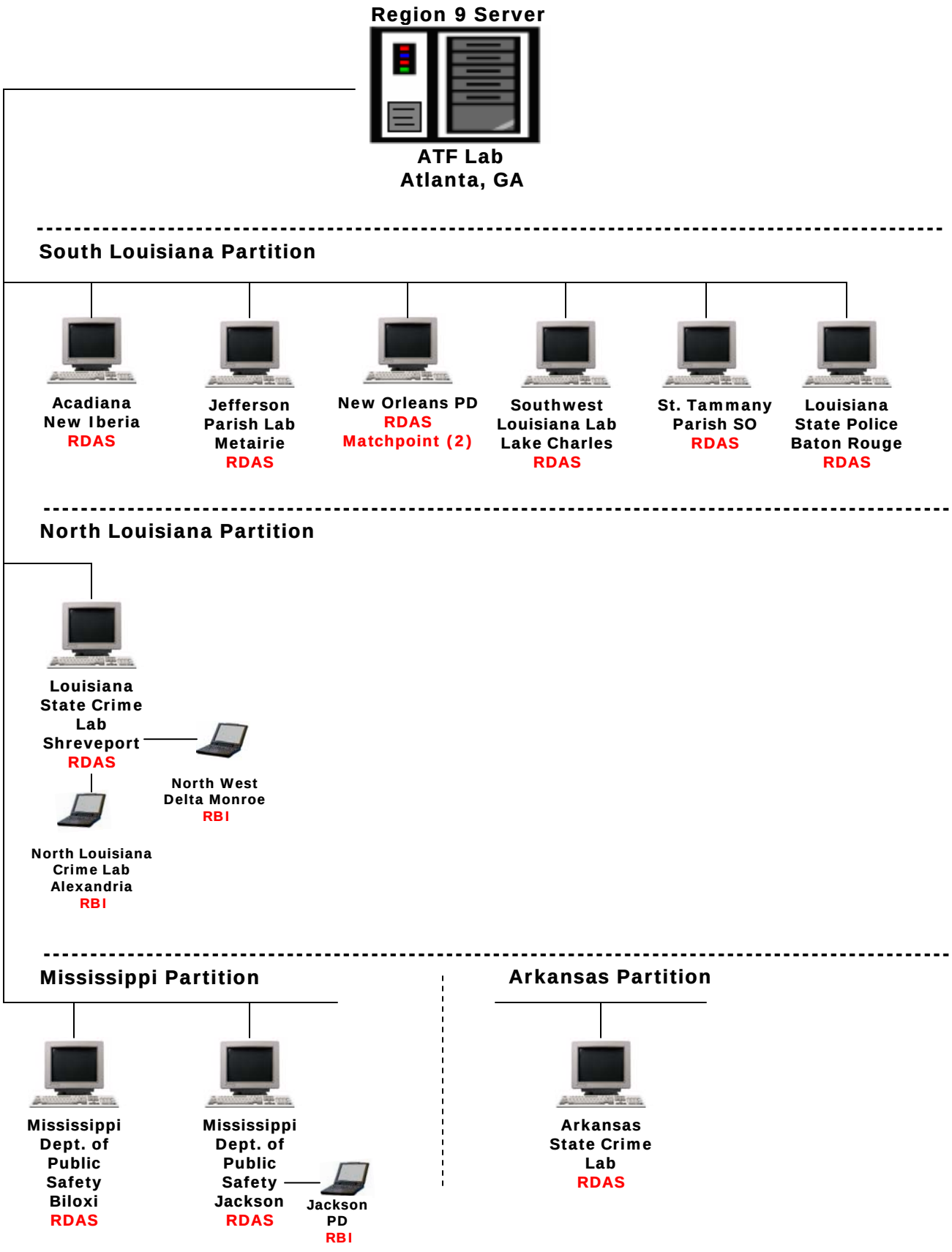
ATF Lab
Walnut Creek, CA

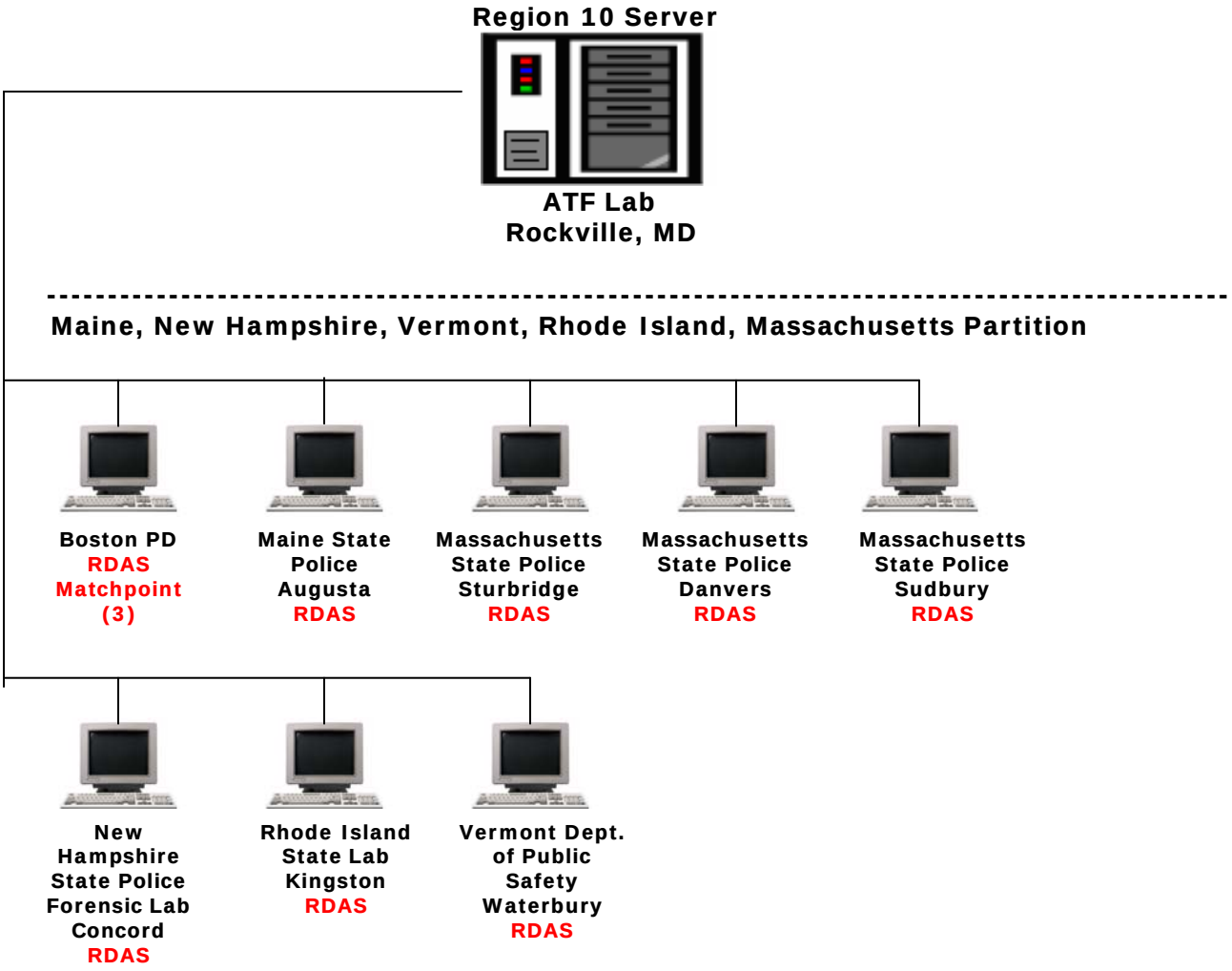
Utah Partition

Northern UT
Lab Ogden
RDAS

Wyoming Partition

Cheyenne
State Lab
RDAS


Region 9 Server
ATF Lab
Atlanta, GA
South Louisiana Partition
Acadiana
New Iberia
RDAS
Jefferson
Parish Lab
Metairie
RDAS
New Orleans PD
RDAS
Matchpoint (2)
Southwest
Louisiana Lab
Lake Charles
RDAS
St. Tammany
Parish SO
RDAS
Louisiana
State Police
Baton Rouge
RDAS
North Louisiana Partition
Louisiana
State Crime
Lab
Shreveport
RDAS
North West
Delta Monroe
RBI
North Louisiana
Crime Lab
Alexandria
RBI
Mississippi Partition
Mississippi
Dept. of
Public
Safety
Biloxi
RDAS
Mississippi
Dept. of
Public
Safety
Jackson
RDAS
Jackson
PD
RBI
Arkansas Partition
Arkansas
State Crime
Lab
RDAS


Region 10 Server
ATF Lab
Rockville, MD
Maine, New Hampshire, Vermont, Rhode Island, Massachusetts Partition
Boston PD
RDAS
Matchpoint
(3)
Maine State
Police
Augusta
RDAS
Massachusetts
State Police
Sturbridge
RDAS
Massachusetts
State Police
Danvers
RDAS
Massachusetts
State Police
Sudbury
RDAS
New
Hampshire
State Police
Forensic Lab
Concord
RDAS
Rhode Island
State Lab
Kingston
RDAS
Vermont Dept.
of Public
Safety
Waterbury
RDAS

PROCESS FOR COLLECTING AND ENTERING EVIDENCE INTO NIBIN, COMPARING THE EVIDENCE TO IDENTIFY POTENTIAL MATCHES, AND EXAMINING POTENTIAL MATCHES TO CONFIRM HITS

Collecting and Entering Evidence

Evidence can be submitted for entry into NIBIN by either a NIBIN partner agency or from a participating law enforcement agency through a given partner agency. The ATF wants all crime-related bullets and cartridge casings collected at crime scenes, and all bullets and cartridge casings from test-fired firearms collected at crime scenes to be entered into NIBIN. The exceptions are evidence from .22 caliber firearms, firearms greater than .50 caliber, and shotguns, because the IBIS equipment is not capable of analyzing evidence from these types of firearms. During the audit, we determined the policies and procedures for the collection and entry of evidence into NIBIN varied among partner agencies. Therefore, the collecting and entering process described below is based on the protocol for ATF Laboratories, which is similar to the process used by the NIBIN partner agencies.

- The evidence technician enters firearms and case information into the laboratory evidence tracking system when the evidence arrives at the laboratory. The items collected are compared to the evidence paperwork and transmittal. The containers are resealed and placed in a vault. A case jacket is produced with the case information.

- In the case of a single submission, with a single firearm to be test-fired for NIBIN, the container is brought into the exam room along with the corresponding case jacket. Notes are made on the type and condition of the evidence containers, the general description of the firearm, make, serial number, type of actions, and other related information. The firearm and container are marked for identification. The date of occurrence is noted from the case information. The firearm is evaluated for safety and functionality. The description of the number and caliber of rounds of ammunition is noted. Test-fire ammunition and the component container are selected and appropriately marked for identification.

- For safety reasons, the test-firing can only be performed with a witness. The firearm and ammunition are taken to the test-fire tank area; the firearm is loaded with no more than two rounds of

ammunition; the firearm is test-fired; and the bullets and cartridge casings are retrieved.

- Each of the test-fired bullets and cartridge casings are individually marked for identification, typically by scribing the base of the bullets and the side of the casings. The bullets are wrapped in tissue, and placed with the casings in the container. The evidence is then taken to the NIBIN entry area.

- The cartridge casings are evaluated for ejector placement. The bullets are also evaluated for the number of land-engraved areas and direction of twist. The bullets are then prepared for NIBIN entry by hot-gluing the bullets to pegs that are mounted onto the RDAS microscope. The case information is entered into the IBIS equipment regarding the firearm and component identifiers.

- The bullets and cartridge casings are repackaged and stored in a file system for any further examinations. The case file and notes are collected and a draft examination report is prepared. The report is peer reviewed, officially printed, and signed.

- The evidence custodian prepares the evidence for return, and the final entries are made into the evidence custody computer. All evidence (e.g., firearms, bullets, or casings) is returned to the investigation officer, the property custodian, or the participating law enforcement agency. Firearms evidence, if entered into NIBIN, should be retained for future comparison if a hit is determined. In the event there is test-fired evidence generated by a given laboratory, it is retained in the laboratory indefinitely for future reference.

The types of cases that should be entered into NIBIN are those crimes that could be identified as “serial” in nature, such as homicides, attempted homicides, gang-type shootings, drug-related shootings, drive-by shootings, officer-involved shootings, robberies, and concealed-weapons offenses.

The process of entering firearms evidence into NIBIN is referred to as acquiring images. After the images are acquired, the next process involves comparing the images to identify potential matches and is called reviewing correlation images. The final process is examining the potential matches to identify hits and is called viewing results.

Comparing Evidence to Identify Potential Matches

After the firearms evidence is entered into NIBIN, the system can perform searches on a local, regional, or national basis to identify potential matches. In November 2003, the system was enhanced to track and compare ballistic images associated with crime firearms nationwide. Prior to the enhancement, the system could only track and compare images locally and regionally.

A local search is automatically performed by the system. Each time a correlation is requested, the system automatically searches within the partition location of the regional server that the partner's IBIS equipment has been configured to search against.

Although regional and national searches can be performed, they must be manually selected. To perform a regional search, the requestor must designate where to search from a map of the NIBIN regions. The requestor is then presented with a list of all the partner agencies in that region, and can either search against all the partner agencies shown or de-select those partner agencies that the requestor does not want included in the search. To perform a national search, the requestor must repeat the regional search for each NIBIN region, as the system will not search all regions at once.

None of the searches result in a positive match of bullets or cartridge casings fired from the same weapon. Instead, the system produces high-confidence candidates that are similar. The IBIS equipment ranks a list of images based on their correlation results. If the images are similar, they likely represent images of ammunition components fired from the same firearm. After the system identifies the high-confidence candidates, the top matches must be reviewed by a firearms examiner to confirm whether an actual match has been identified.

Examining the Potential Matches to Identify Hits

To confirm the potential matches as a hit, the firearms examiner obtains the original evidence and compare the high-confidence candidates to the physical evidence. If the high-confidence candidates selected match the actual evidence, a hit is identified and marked in the system by the firearms technician. Once confirmed, the hit must be recorded in NIBIN for reference purposes. Once the hit is recorded, the reference case, and the image within the case file are displayed in red. If a hit occurs between two sites, the information is not transferred to the other site by the system. Rather, the other site must be notified to create the hit in its own database.

Other NIBIN linkages derived by investigative lead, hunches, or previously identified laboratory examinations are termed “warm hits” and should not be counted as hits. When there is an interagency hit, the agency initiating and confirming the microscopic comparison will be credited for the hit. For example, if “Agency A” discovers a high confidence candidate from “Agency B’s” evidence, “Agency A” requests the physical evidence for review and confirms whether the high-confidence candidate is an actual hit. “Agency A” is credited for the hit because it was initiated by “Agency A.” However, if “Agency A” determines a high-confidence candidate had previously been discovered as a hit or had been identified as a hit from previous investigations or leads, the high-confidence candidate is not marked in the system as a hit. When an interagency hit is confirmed, each involved agency should mark the hit in IBIS. Further, only the agency initiating and confirming the comparison should include the hit in its statistics reported to ATF’s NIBIN contractor. The NIBIN contractor reports the hit information to the NIBIN field coordinators, who report the information to NIBIN headquarters through an electronic reporting system known as the NIBIN case system.[40]

[40] In addition, hit information is reported to NIBIN headquarters to promote the NIBIN program, as well as to develop the “Hit of the Week” or “NIBIN Success Story” publications.

APPENDIX IX

NIBIN SUPPORT

The ATF provides customer support to NIBIN partner agencies through a contractor (Forensic Technology, Inc.). The ATF also provides field support through a network of support representatives that include both ATF and contract personnel. These support systems are discussed below.

Customer Service/Support

The ATF uses a contractor to provide program and project management oversight. The services provided by the contractor include:

- scheduling contract activities,
- offering customer service support and engineering,
- developing new hardware and software,
- maintaining the hardware and software,
- training,
- contingency/backup planning,
- providing disaster recovery and data restoration, and
- maintaining documentation to support the IBIS equipment.

The contractor conducts a training class to prepare NIBIN partners to enter firearms evidence into NIBIN. The contractor also monitors the IBIS equipment and provides preventative maintenance services. Further, the contractor administers scheduled upgrades of NIBIN.

The training offered by the contractor ensures that each partner has the knowledge and ability to be proficient in the operation of the IBIS equipment deployed within their agencies. The training includes: (1) initial/basic user training upon the receipt and installation of new equipment, (2) advanced user training offered to established users with prior experience, and (3) IBIS equipment administration training for users who perform administrative functions.

The initial/basic user training ensures that users become proficient in system components and functionality; case creation; cartridge case

acquisition; correlation, scoring and comparisons; bullet acquisition; damaged bullet and fragment acquisition scoring and manual correlations; hit creation; reporting; and practical application of acquired knowledge and understanding.

The advanced user training is offered as a refresher training following upgrades to the IBIS equipment. This training reinforces concepts and elements from the basic user training and presents more detailed expert instructions. The training also provides a refresher of the topics covered in the basic user training along with training for upgrades to the IBIS equipment.

IBIS system/administration training assists users who will perform system administrative functions; issue and manage user or administrator accounts; perform backup functions; and help with any other IBIS equipment in support of some disaster recovery and data restoration actions.

NIBIN Field Support

The ATF established field level staffing for the NIBIN program to provide assistance in the administration at the field level. Support at the field level is thought to be crucial to the success of the program. The field level support is offered through: (1) regional coordinators, (2) NIBIN coordinators, (3) NIBIN contractors, and (4) the NIBIN Users Congress.

Regional Coordinators

The regional coordinators act on behalf of the NIBIN headquarters office in Washington, D.C., within their respective regions. The regional coordinators also:

- act as the liaison between NIBIN headquarters and field divisions within their prescribed area of responsibility;
- act as the liaison between NIBIN headquarters, assigned coordinators, and contractors within the field divisions;
- act as the liaison between NIBIN headquarters and the state and local governments within their prescribed region of responsibility;
- provide presentations and training on behalf of NIBIN headquarters to various audiences, including federal, state, and local government officials at conferences and meetings;

- market the NIBIN program on behalf of NIBIN headquarters at conferences and meetings;

- provide feedback to NIBIN headquarters and to the manufacturer of the IBIS equipment, on the utilization of the equipment in the field, as well as the problems associated with the equipment by the laboratories;

- authorize and schedule training for the local users involved in the NIBIN program;

- participate in the dissemination of the IBIS equipment by meeting with management at prospective sites;

- tour the laboratory sites to determine if they meet the pre-defined criteria of the NIBIN headquarters' standards of use, and if justified, coordinate delivery and placement of the equipment;

- act as the representative for the assigned area of responsibility at the NIBIN Users Congress meetings;

- manage the NIBIN program and provide guidance through regular interaction and communication with the NIBIN coordinators, contractors, and field divisions within each area of responsibility;

- act as liaison with state and local law enforcement executives to discuss the need for the utilization of IBIS and the NIBIN program;

- visit all NIBIN sites within each regional coordinator's area of responsibility to discuss usage of the program within that area;

- provide support to each field division as it relates to the special agent-in-charge's goals and objectives, keeping an emphasis on the NIBIN program and its priorities;

- inform state and local agencies, in conjunction with the field division, of various federal grants available to assist them with the NIBIN program;

- assist the field divisions, when requested, by assigning ATF employees to local NIBIN coordinator positions;

- attend, and assist in the development of local users meetings within each area;

- visit and support the local laboratories and act as a liaison between the laboratories and the coordinators/field divisions;

- support and assist in initiating criminal investigations where NIBIN may play a role;

- maintain daily e-mail and telephone contact with the local coordinators and contractors within the regional coordinators' areas of responsibility;

- review the hit reports and make recommendations for further investigative courses of action;

- provide NIBIN training and marketing materials to the field divisions and law enforcement entities within their areas of responsibility; and

- provide general troubleshooting, if required.

NIBIN Special Agent Coordinators

The NIBIN special agent coordinators work with the NIBIN contractors to ensure that the NIBIN program is succeeding in their region of responsibility. The special agent coordinators also represent the ATF at laboratories and at state and local partner agencies. The special agent coordinators perform this duty in addition to their regular duties. The special agent coordinators:

- coordinate and conduct all investigative activity associated with the NIBIN program;

- conduct quality control activities involving ATF-owned inventories;

- coordinate intelligence information with other ATF field divisions and local police departments;

- provide roll-call training on the benefits of participating in the program and emphasize processing as much evidence as possible;

- ensure that performance measurement data is transmitted regularly to NIBIN headquarters;

- direct and review the activities of the NIBIN contractor; and

- verify the hours worked by the NIBIN contractor.

NIBIN Contractors

The NIBIN contractors are assigned to the field divisions to provide immediate assistance to the partner agencies. These individuals are usually retired law enforcement personnel. The NIBIN contractors report to the NIBIN coordinator at the field division level. The NIBIN contractors:

- assist the NIBIN coordinator in roll-call training and inventory control;

- obtain statistical data from NIBIN partner agencies on a monthly basis and troubleshoot potential problems with the IBIS equipment;

- report outcomes of hits generated, by contacting and linking affected law enforcement agencies; preparing case synopses involving hits; and reporting arrests; and

- encourage law enforcement agencies to submit evidence to participating laboratories.

NIBIN Users Congress

To offer additional support at the field level, the NIBIN Users Congress was established in November 2002. The NIBIN Users Congress is comprised of a representative from a partner agency from each region and is responsible for: (1) advising program participants on policies and standards, (2) seeking out and publicizing best practices for implementation, and (3) assisting in audits of NIBIN sites.

MEMORANDA DIRECTING THAT ALL DEPARTMENT OF JUSTICE AND DEPARTMENT OF THE TREASURY LAW ENFORCEMENT AGENCIES ENTER BULLETS AND CARTRIDGE CASINGS FOUND AT CRIME SCENES INTO NIBIN

Office of the Attorney General
Washington, D.C. 20530

January 19, 2001

MEMORANDUM FOR John W. Marshall
Director
United States Marshals Service

Donnie R. Marshall
Administrator
Drug Enforcement Administration

Kathleen M. Hawk Sawyer
Director
Federal Bureau of Prisons

Mary Ann Wyrsch
Deputy Commissioner
Immigration and Naturalization Service

Louis J. Freeh
Director
Federal Bureau of Investigation

FROM: THE ATTORNEY GENERAL

SUBJECT: Establishing Institutional Crime Gun Tracing and Ballistics Identification

Under President Clinton's leadership, this Administration has made the prevention and solution of violent crimes key aspects of its law enforcement agenda. We have focused on gun crime in particular, and the Departments of Justice and the Treasury have made the apprehension and punishment of gun offenders central to their efforts. Over the course of the last 8 years, we have met with notable success. The rate of violent crime generally, and gun crime in particular, has dropped substantially. The homicide rate is at its lowest in over 30 years, and the rate of gun violence has dropped 35 percent since 1992. Despite this significant progress, violent crime remains a serious problem. We recognize that we must continue to take steps to ensure the safety of the American public.

As the Departments of Justice and the Treasury have worked together to meet our objectives, we have also sought to provide law enforcement personnel at the federal, state, and local levels with

the most effective and modern techniques and technology. Information is one of the most powerful tools law enforcement officers can employ to enhance the performance of their duties and simplify their execution. We have endeavored to increase access to better sources of accurate and reliable information. For example, the Administration has recently invested heavily in two complementary tools that are rapidly transforming federal, state, and local firearms enforcement: crime gun tracing and ballistics identification.

Tracking the history of each firearm, spent bullet, and shell casing recovered from a crime scene assists law enforcement investigators in solving the crime at hand, developing information on illegal firearms trafficking patterns, and formulating strategies to identify violent offenders and respond to the illegal supply of firearms within a given jurisdiction. In 1999, over 200,000 trace requests were submitted to the Bureau of Alcohol, Tobacco and Firearms' (ATF) National Tracing Center. ATF reported using gun tracing as an investigative tool in 60 percent of over 1,500 trafficking investigations between 1996 and 1998. ATF has promoted comprehensive tracing in 50 designated cities as part of its Youth Crime Gun Interdiction Initiative and encourages comprehensive tracing by all law enforcement agencies. These traces have significantly assisted law enforcement. ATF and Federal Bureau of Investigation (FBI) ballistics imaging programs have identified thousands of gun crime leads that may otherwise not have been available.

In recognition of the immense value of this information, Secretary of the Treasury Summers and I have determined that all Treasury and Justice enforcement bureaus and agencies should trace every recovered crime gun through ATF's National Tracing Center and enter bullets and shell casings found at a crime scene into the ATF/FBI National Integrated Ballistics Information Network (NIBIN). Accordingly, if your agency is not already doing so, you should implement this directive by assuring that every crime gun recovered by your agents and investigators is traced by coordinating with your local ATF office. Similarly, ballistic evidence recovered from crime scenes should be entered into NIBIN. For assistance in facilitating your efforts or for more information, please contact the Bureau of Alcohol, Tobacco and Firearms, John Malone, Assistant Director (Firearms, Explosives and Arson), (202) 927-7940.

The dedicated effort demonstrated by your agency in striving to reduce violent crime has been paying dividends. By taking this extra step, we can continue to improve upon our successes.

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C.

January 19, 2001

MEMORANDUM FOR: BRADLEY A. BUCKLES, DIRECTOR
BUREAU OF ALCOHOL, TOBACCO, AND FIREARMS

RAYMOND W. KELLY, COMMISSIONER
U. S. CUSTOMS SERVICE

W. RALPH BASHAM, DIRECTOR
FEDERAL LAW ENFORCEMENT T

BRIAN L. STAFFORD, DIRECTOR
U. S. SECRET SERVICE

CHARLES O. ROSSOTTI, COMMISSI
INTERNAL REVENUE SERVICE

JAY JOHNSON, DIRECTOR
U.S. MINT

TOM FERGUSON, DIRECTOR
BUREAU OF ENGRAVING AND PRINTI

JEFFERY RUSH
OFFICE OF INSPECTOR GENERAL

FROM: LAWRENCE H. SUMMERS
SECRETARY

SUBJECT: Establishing Institutional Crime Gun Tracing and Ballistics Identification

Under President Clinton's leadership, this Administration has made the prevention and solution of violent crimes key aspects of its law enforcement agenda. We have focused on gun crime in particular and the Treasury and Justice Departments have made the apprehension and punishment of gun offenders central to their efforts. Over the course of the last eight years, we have met with notable success. The rate of violent crime generally, and gun crime in particular, has dropped substantially. The homicide rate is at its lowest in over 30 years, and the rate of gun violence has dropped 35 percent since 1992. Despite this significant progress, violent crime remains a serious problem. We recognize that we must continue to take steps to ensure the safety of the American public.

As the Justice and Treasury Departments have worked together to meet our objectives, we have also sought to provide law enforcement personnel at the Federal, State, and local levels with the most effective and modern techniques and technology. Information is one of the most powerful tools law enforcement officers can employ to enhance the performance of their duties and simplify their execution. Accordingly, we have endeavored to increase access to better sources of accurate and reliable information. For example, the Administration has recently invested heavily in two complementary tools that are rapidly transforming Federal, State, and local firearms enforcement: crime gun tracing and ballistics identification.

Tracking the history of each firearm, spent bullet, and shell casing recovered from a crime scene assists law enforcement investigators in solving the crime at hand, developing information on illegal firearms trafficking patterns, and formulating strategies to identify violent offenders and respond to the illegal supply of firearms within a given jurisdiction. In 1999, over 200,000 trace requests were submitted to the Bureau of Alcohol, Tobacco and Firearms' (ATF's) National Tracing Center. ATF reported using gun tracing as an investigative tool in 60 percent of over 1,500 trafficking investigations between 1996 and 1998. ATF has promoted comprehensive tracing in 50 designated cities as part of its Youth Crime Gun Interdiction Initiative and encourages comprehensive tracing by all law enforcement agencies. These traces have significantly assisted law enforcement. ATF and Federal Bureau of Investigation ballistics imaging programs have identified thousands of gun crime leads that may otherwise not have been available.

In recognition of the immense value of this information, Attorney General Janet Reno and I have determined that all Treasury and Justice enforcement bureaus and agencies should trace every recovered crime gun through ATF's National Tracing Center and enter bullets and shell casings found at a crime scene into the ATF/FBI National Integrated Ballistics Information Network (NIBIN). Accordingly, if your agency is not already doing so, you should implement this directive by assuring that every crime gun recovered by your agents and investigators is traced by coordinating with your local ATF office. Similarly, ballistic evidence recovered from crime scenes should be entered into NIBIN. For assistance in facilitating your efforts, or for more information, please contact ATF, John P. Malone, Assistant Director (Firearms, Explosives and Arson) at (202) 927-7940.

The dedicated effort demonstrated by your agency in striving to reduce violent crime has been paying dividends. By taking this extra step, we can continue to improve upon our successes.

APPENDIX XI

ATF NIBIN PROGRAM HITS OF THE WEEK

ATF NIBIN Program
Hits of the Week
January 24 to February 7, 2005

NIBIN Branch, Firearms Programs Division, Bureau of Alcohol, Tobacco, Firearms and Explosives

Week of 1/24: A handgun recovered from a suspect in an aggravated assault was linked to a shooting that occurred during a robbery eighteen months earlier by the Metro Nashville (TN) Police Department using the NIBIN system. In the first incident, two armed suspects approached two victims who were sitting in a car parked on the street. The suspects demanded money. While trying to flee the scene, one victim was shot by the suspects. Police responding to the call found 9mm cartridge casings at the scene and imaged them into NIBIN. Eighteen months later, two people showed up at the apartment of a friend of one of the visitors. A fight broke out between the suspect and the occupant of the apartment resulting in the occupant being shot. The victim provi ded police with an identification of the suspect and they located him a short time later. A 9mm pistol was recovered from the suspect's car. The pistol was test fired and imaged into NIBIN resulting in the link to the aggravated assault eighteen months earlier. The case is pending.

Week of 1/31: Use of the NIBIN system by the Charlotte (NC) Police Department and Federal law enforcement assisted in the Federal prosecution and conviction of a felon involved in a shooting and in firearms trafficking. Charlotte Mecklenburg Police responded to the scene of a shooting where they located two female victims who were passengers in a vehicle driven by a suspect involved in the shooting. The suspect got into an argument with the driver of another vehicle when they both pulled out guns and started firing at one another. The first suspect drove away with the two female victims in the car and officers from the University of North Carolina, Charlotte, Police Department attempted to stop the vehicle. He refused, wrecked the car a short time later and fled on foot. Both victims told police they did not know the identity of the suspect. Police recovered .40-caliber and 9mm shell casings at the scene of the shooting and imaged them into NIBIN. Sixteen months later, a Federal task force investigating firearms trafficking obtained a .40-caliber pistol from a suspected "straw purchaser." The suspect from the shooting sixteen months earlier was believed to have possessed and trafficked in firearms that were purchased by several female associates. The .40-caliber pistol was test fired and imaged into NIBIN resulting in the link to the earlier shooting. Task force members followed up on the investigation and found the suspect was a multi-convicted felon and one of the female victims in the first shooting confirmed he was in possession of the pistol at the time of the shootout. The suspect was convicted in Federal Court and sentenced to nearly four years in prison.

Week of 2/7: The Shreveport Police Department and the North Louisiana Criminalistic Laboratory linked a .40-caliber pistol recovered during a narcotics investigation to an alleged drug-related shooting that occurred five days earlier. In the first incident, two victims were sitting in a vehicle near an intersection when another vehicle pulled up and the occupants began shooting at them. The victim passenger sustained a gunshot wound to the head, but survived. Shreveport Police recovered ballistic evidence at the scene, which was imaged into NIBIN. Investigators received information about possible suspects and that the shooting was allegedly revenge for the victims stealing drugs. Five days later Shreveport Police working a narcotics investigation served a search warrant on a residence and recovered several pistols, a rifle, narcotics, narcotics paraphernalia and a large sum of cash. One suspect was arrested. The weapons were test fired and imaged into NIBIN resulting in one of the pistols linking to the ballistic evidence recovered in the shooting five days earlier.

APPENDIX XII

HOW NIBIN SEARCHES ARE USED BY NIBIN PARTNER AGENCIES WE VISITED

Partner Agency Visited	Response on Searches Used
Minneapolis Police Department	Manual searches are very seldom performed and only if other localities ask for it. A national search has never been performed, but if the opportunity arises, the department will conduct it.
New Orleans Police Department	Only one regional search has been done at the request of another agency. No other national or regional searches have been requested.
Rhode Island State Crime Laboratory	The local search, which is automatically performed, is always used. However, no law enforcement agency has requested regional or national search options. If such a request were made, the options would be used.
Boston Police Department	The local search is used because of the automatic comparison. The regional search and national search options are seldom used because crimes generally occur in the area where the suspect is arrested and the evidence is recovered. Regional or national searches are done when case agents have specific evidence that: (1) suspects are from a different part of the United States, and (2) a crime was committed in another part of the United States.
Omaha Police Department Crime Laboratory	Local searches have been done. The agency could not demonstrate how to perform a national search.
Denver Police Department	Manual searches, either regionally or nationally, are rarely done. Some regional searches and only one national search have been done, and those types of searches are only done upon request.
New Mexico Department of Public Safety	A regional search has been done. On one occasion, a national search was done as a result of a request, but this is very rare. This national search was arranged by the ATF and Forensic Technology, Inc.
Houston Police Department	Only local searches are performed.

Partner Agency Visited	Response on Searches Used
Tulsa Police Department	Only local searches are performed because most "hits" are going to be local and it is too cumbersome to do national searches.
Detroit Police Department Forensic Services Crime Laboratory	Manual searches have been done for Indiana. A high-confidence candidate resulted from one of the images found, and as a result, a manual search and side-by-side comparison were done. In addition, some manual searches have been done for Highland Park, Michigan.
Mississippi State Crime Laboratory	Searches are performed both regionally and nationally.
Allegheny County (PA) Coroner's Office Forensic Laboratory Division	Manual searches are done regionally and nationally. If the staff knows the firearms evidence is from an outside resident, an effort is made to search outside the automatic search. Also, if evidence was entered on one date, and additional evidence is entered on another date, a manual search is performed to double check for hits.
Washington State Patrol Crime Laboratory – Tacoma	Local searches are always used for comparing firearms evidence, but regional and national search options are often used when state and local law enforcement agencies make specific requests.
Indiana/Marion County Forensic Laboratory	Regional searches are always performed. National searches have never been performed.
Charlotte Police Department	Local searches are performed as the default setting; which is for the locations within their respective partitions.
Hickory (NC) Police Department	Searches are performed within the respective regions. In one instance, a national search was done for the Philadelphia Police Department. However, national searches are not performed regularly and only upon request or if there is a particular lead.
ATF Laboratory – Ammendale (MD)	Whenever federal, state, or local law enforcement agencies submit a case for entry into NIBIN, the lead investigator informs the technicians of the type of search to make. Almost all searches are made against the local partitions.

Partner Agency Visited	Response on Searches Used
Prince George's County (MD) Police Department	Searches are not performed outside of the local partition because the agency did not know how to initiate the regional or national search. Since 2003, there have been two instances where the agency needed to use the national search feature. In both instances, the ATF Ammendale Laboratory was requested to perform the national searches.
ATF Laboratory – Atlanta	Searches are performed locally. Generally, case agents request nationwide searches.
Georgia Bureau of Investigation – Decatur	Local searches are always performed. National searches are done upon request.
Los Angeles Police Department	The system automatically performs local searches. Regional and national searches are performed upon the case agents' request.
Erie County (NY) Forensic Laboratory	Local searches are always performed. Regional and national searches are performed upon the case agents' request.

Source: Interviews with Partner Agency Officials

APPENDIX XIII

EXPLANATION OF "RARELY" AND "NEVER" RESPONSES FOR REGIONAL SEARCHES

Partner Agency Surveyed	Response	Explanation
Montgomery County (TX) Sheriff's Office	Rarely	Regional searches are not performed because the agency does not have a firearms examiner.
Fresno County (CA) Sheriff's Department	Rarely	Searches are performed upon request or if the case's circumstances dictate; however, regional searches are rarely requested.
Hamilton County Coroner's Laboratory – Cincinnati	Rarely	Kentucky is the primary region of interest; however agencies in that region do not enter images.
West Virginia State Police – Charleston	Rarely	Regional searches are not performed because there is little time for this type of search.
Honolulu Police Department	Rarely	There is no opportunity to do regional searches.
Oakland County (MI) Sheriff's Office	Never	No requests have been received to search regionally.
Johnson County (KS) Sheriff's Office	Never	Searches are done at the Kansas Bureau of Investigation.
Idaho State Police	Never	Regional searches are not performed because of the lack of training.
Virgin Islands Police Department	Never	Regional searches are not performed because the system is in the process of coming online.

Source: Survey Questionnaires from NIBIN Partner Agencies

APPENDIX XIV

EXPLANATION OF "RARELY" AND "NEVER" RESPONSES FOR NATIONAL SEARCHES

Partner Agency Surveyed	Response	Explanation
Oakland (CA) Police Department	Rarely	National searches are done only if the investigative information suggests such a search.
Metropolitan Police Department – Nashville	Rarely	National searches should not be done as a matter of course.
Michigan State Police – East Lansing	Rarely	The need for national searches never arises.
Iowa Division of Criminal Investigation	Rarely	National searches are performed if requested by the submitting agency.
Montgomery County (TX) Sheriff's Office	Rarely	National searches are not performed because the agency does not have a firearms examiner.
Indiana State Police – Lowell	Rarely	National searches are done only as warranted.
Santa Ana (CA) Police Department	Rarely	Normally, there needs to be a reason to conduct a national search.
Kern County/Bakersfield (CA) District Attorney's Office	Rarely	The laboratory routinely checks regions 1A, 1B, and 8. Historically, guns are used locally or in adjoining regions.
San Francisco Police Department	Rarely	There has never been a need to perform national searches.
Broward County (FL) Sheriff's Office	Rarely	National searches are only done when there is a request.
Miami-Dade Police Department	Rarely	Searches are usually not needed beyond the Southeast region.
Virginia Division of Forensic Science – Eastern Laboratory – Norfolk	Rarely	National searches are not necessary.
Baltimore County Police Department	Rarely	Searches outside the area are by request only.

Partner Agency Surveyed	Response	Explanation
Wisconsin Department of Justice – Milwaukee	Rarely	Searches are done in the local and surrounding areas. Usually, another agency requests searches outside the local region.
Washington State Police – Spokane	Rarely	National searches are performed if case information warrants.
Miami Valley (OH) Regional Crime Laboratory	Rarely	National searches are done when the case synopsis indicates the possibility of travel outside the region.
Kansas Bureau of Investigation – Topeka	Rarely	National searches are too slow and cumbersome.
St. Louis County Police Department	Rarely	National searches are not performed, because most crimes occur regionally.
Knoxville Police Department	Rarely	National searches are performed when investigators request them.
Massachusetts State Police – Sturbridge	Rarely	National searches are not performed because of the amount of time they take.
Maine State Police	Rarely	National searches are done only when a case should be searched with good reason.
Newark (NJ) Police Department	Rarely	National searches are done only when the department is asked to do so.
California Department of Justice – Riverside	Rarely	No explanation provided.
New Jersey State Police	Rarely	No explanation provided.
Mesa Police Department Crime Laboratory	Rarely	No explanation provided.
South Carolina Law Enforcement Division – Columbia	Never	National searches have never been requested.
Lake County (IN) Crime Laboratory	Never	National searches are too difficult because of the lengthy steps involved.

Partner Agency Surveyed	Response	Explanation
Fresno County (CA) Sheriff's Department	Never	National searches would be performed upon request, or if the case circumstances dictated them. However, national searches have never been requested.
Florida Department of Law Enforcement – Tallahassee	Never	A national search request has never been received or determined to be needed.
Suffolk County (NY) Laboratory	Never	National searches are not viewed as a viable use of resources.
Oakland County (MI) Sheriff's Office	Never	A request to perform a national search has never been received.
West Virginia State Police – Charleston	Never	There is very little time for this type of search.
Johnson County (KS) Sheriff's Office	Never	Searches are done at the Kansas Bureau of Investigation.
St. Louis Metropolitan Police Department	Never	A request to perform a national search has never been received.
Alabama Department of Forensic Science – Mobile	Never	National searches are performed only upon request.
Louisiana State Police – Baton Rouge	Never	A request for national searches has never been received.
Honolulu Police Department	Never	The opportunity to do national searches is rare because there are not many open cases.
Idaho State Police	Never	National searches are not performed because of a lack of training.
Virgin Islands Police Department	Never	National searches are not performed because the system is in the process of coming online.
Texas Department of Public Safety – Tyler	Never	No explanation provided.

Source: Survey Questionnaires from Partner Agencies

APPENDIX XV

ATF'S RESPONSE TO THE DRAFT AUDIT REPORT

U.S. Department of Justice

Bureau of Alcohol, Tobacco,
Firearms and Explosives

Office of the Director

Washington, DC 20226

903020: SMP
8310

JUN 10 2005

MEMORANDUM TO: Assistant Inspector General for Audit

FROM: Director

SUBJECT: Response to the Office of the Inspector General (OIG) Draft Audit Report: Review of the Bureau of Alcohol, Tobacco, Firearms and Explosives' National Integrated Ballistic Information Network (NIBIN) Program

The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) appreciates the opportunity to respond to the recommendations from the OIG's above-cited draft report. Although we were previously aware of and acting to improve many areas included in your findings, we welcome constructive criticism of our programs as this independent evaluation process typically helps us improve our ability to effectively plan and manage our resources more efficiently.

The NIBIN Program has experienced exponential growth since its inception in 1999. The deployment of a nationwide network of Integrated Ballistic Identification System (IBIS) technology to over 236 law enforcement laboratories within every U.S. state and territory was a monumental achievement. The success of this deployment is a testament to the cooperation and partnership forged between ATF and participating law enforcement agencies. Although it is impossible to provide IBIS technology and equipment to every single U.S. law enforcement agency, each and every domestic law enforcement agency has access to the system through one of NIBIN's State and local partners.

Since ATF and its partner agencies began using this technology, over 846,000 pieces of crime scene evidence have been entered and over 21,000 ballistic links resulting in

10,846 hits (minimum 2 cases to make one hit) have been made. The success of the program is best judged by law enforcement agencies that have closed years-old cold cases via the NIBIN Program.

Within the Summary of this report, the basis used to identify an independent law enforcement agency or a division of a law enforcement agency was the Originating Agency Reporting Identifier (ORI) number. ATF believes that it is misleading to use the number of ORIs as the statistical basis to evaluate technology allocation, program utilization, and performance because one single agency can have numerous ORIs assigned to it. By way of example, ATF alone has over 362 ORIs or about fifteen per field division. Similarly, many of the larger NIBIN State and local law enforcement partners have multiple ORIs within an agency, and all local law enforcement jurisdictions have at least one ORI number, regardless of size.

In general, ATF concurs with the findings and recommendations of your report and will address each recommendation in a corrective actions report.

Our responses to your recommendations are as follows:

1. **Determine whether additional IBIS equipment should be purchased and deployed to high-usage non-partner agencies, or whether equipment should be redistributed from the low-usage partner agencies to high usage non-partner agencies.**

ATF concurs with this recommendation, with comment.

The NIBIN Program Office is aware of non-partner agencies that submit a high volume of ballistic evidence for entry into IBIS. Whether these agencies should receive IBIS equipment based on the volume of entries is an issue that must be carefully considered. Numerous agencies identified as non-partner, high-usage agencies do not have forensic laboratories and/or the necessary staff that can support deployment of the IBIS equipment. One of the main criteria for deployment of a Data Acquisition Station Remote (DAS/R) is the need for the agency to have a firearms examiner on staff to review and confirm potential "hits." Therefore, sheer volume of ballistic evidence submissions for NIBIN entry cannot be the sole reason for deploying this equipment to an agency. Further, some states have laboratory systems that support all law enforcement agencies with forensic evidence. For instance, the Commonwealth of Virginia has the Virginia Division of Forensic Science (VDFS) Laboratory system consisting of five

laboratories located strategically throughout the state. One of the non-partner, high usage agencies you cite in your report, the Richmond Police Department, submits their ballistic evidence to the VDFS laboratory located in Richmond, Virginia. This procedure is by agreement of the two agencies and the Richmond Police Department. Further, without increased funding, the NIBIN Branch cannot purchase additional equipment to deploy to more agencies that have requested participation in the Program.

The issue of redistributing IBIS equipment from low-usage partner agencies is being addressed by the NIBIN Program Office. Policies are in place to address low usage and we are making notifications to agencies that fall below the monthly usage standards. Site visits have been or are being made to some agencies to address the issue face-to-face with laboratory management to determine whether the equipment should remain or redeployment to another requesting agency should be made. Two IBIS units that were not being utilized have been redeployed to approved agencies. We will continue to monitor low-usage sites and make determinations as to whether the equipment should remain. Consideration must be given to the availability of IBIS technology to law enforcement agencies that reside in regions that historically have low usage based on the amount of firearms crimes.

2. **Provide additional guidance, training, or assistance to the partner agencies that indicated they did not perform regional or nationwide searches because they either lacked an understanding of the process or lacked manpower to perform such searches.**

ATF concurs with this recommendation.

During the IBIS equipment deployment period of April 2001 through October 2003, ATF provided training, at no cost, to law enforcement sites receiving equipment. A segment of student training included proper procedures for conducting database searches. The NIBIN Program personnel also provided presentations on IBIS capabilities through venues such as regional NIBIN User Conferences and other professional meetings. ATF currently sponsors 10 user-training sessions per year, with regional and national searches as part of the core curriculum. In addition, a Help function is available in the system, providing users with detailed instruction on conducting national searches. NIBIN will identify those sites needing direction and schedule remedial instruction techniques for executing regional and national database searches.

Assistant Inspector General for Audit

3. Ensure that NIBIN partner agencies enter the ORI number of the contributing agency for all evidence entered into NIBIN.

ATF concurs with this recommendation, in part.

During the database requirements design phase for the IBIS system, a complete listing of law enforcement and criminal justice agencies ORI numbers were furnished to Forensic Technology, Inc. (FTI) (IBIS contractor) for populating the IBIS system's Law Agency field. For the past five years users have had the ability to select from an ORI "pick list" of law enforcement agencies within their geographical area, via a software process to accelerate entering descriptive ballistic case data. ATF will randomly perform site audits to verify that users are following data entry protocols and procedures. We will also reiterate these best practices to users in the course of on-site training, professional conferences, and meetings.

4. Resolve the duplicate case ID number issue in the NIBIN database for the Colorado Bureau of Investigation – Montrose; and the Rhode Island State Crime Laboratory.

ATF concurs with this recommendation, with comment.

From information and documentation received from FTI, each NIBIN site has a unique site code. Software configuration of each DAS Remote will not allow a user of the system to enter duplicate case identification numbers. Multiple submissions connected to the same case could be entered if a suffix was added (e.g., 94N-0912 and 94N-0912(1)).

NIBIN will review data from sites referenced in the audit report and identify those cases that may necessitate electronic consolidation.

5. Research the reasons why 12 agencies have achieved high hit rates with relatively low number of cases entered into NIBIN and share the results of such research with the remaining partner agencies.

ATF agrees with this recommendation, with comment.

This issue is noted and is of concern to NIBIN. The audit report lists twelve NIBIN Partner laboratories with numbers of linked crimes that are higher than many other NIBIN Partner laboratories.

Assistant Inspector General for Audit

It is a noted fact that there is a direct correlation between an increase in evidence exhibits entered into a partner database and an increase in hit ratios. It is proven and accepted that non-evidence entries, test fires, must be able to compare to evidence to establish linked crimes. Test fires are not always from crimes but from "possible" crime guns - - guns coming into police custody. These guns are not always connected to shooting crimes, but in many cases firearms seized during arrests for non-gun crimes or during the investigation of non-gun offenses. Thus, test fires entered from non criminal offense guns would not always be highly suspect of gun crime activity whereas evidence images entered into NIBIN are always crime gun connected. A review of the twelve (12) selected laboratories mentioned by the OIG shows that all have in excess of 50% of their databases as evidence. Conversely, partner laboratories with lower hit totals are found to have an abundance of test fires in the database, NOT evidence of crimes. It takes known crime evidence to link two crimes.

One exception is noted to the above explanation. The laboratory in Johnson County, Kansas, is a very limited user of the NIBIN system as that laboratory has always had a staff shortage and no assigned user for the NIBIN equipment. Subsequently, the user laboratory imaged in only 13 total cases and the resulting hits were suspected of being "Non Hits", not "cold hits" by definition, but in fact "known" hits used in the database to test the accuracy of the system. This resulted in a "hit ratio" of 35%, extremely high, and achieved by only entering "known linked" images.

6. **Establish a plan to enhance promotion of NIBIN to law enforcement agencies nationwide to help increase participation in the program. The plan should address steps to: 1) increase the partner agencies' use of the system, 2) increase the non-partner agencies' awareness and use of the system, and 3) encourage the partner agencies to promote the NIBIN program to other law enforcement agencies in their area.**

ATF concurs with this recommendation.

Since the inception of the NIBIN program, ATF recognized the need to market and promote the use of the program. The methods to market this new technology and its expansion included presentations at law enforcement conferences and forensic sciences seminars, periodic mailings of literature to law enforcement and laboratory facilities, marketing material, the ATF web page, and simple word of mouth.

ATF will continue to market the NIBIN program by attending and making presentations at national and regional law enforcement and forensic sciences seminars. ATF will continue to support the NIBIN Users Congress Group, which is comprised of a select sampling of NIBIN users throughout the U.S., who provide feedback to ATF as to

technical and administrative advice pertaining to the day-to-day operation of the equipment.

ATF will continue to concentrate on visiting the partner agencies, stressing to them the importance of entering all test-fired crime guns and crime scene evidence. ATF will also provide updated printed materials to the partner agencies, so that they can disseminate this material to those that have not yet learned of the value of NIBIN. ATF will also continue to update the ATF NIBIN web page, so that visitors to the ATF Web site may scan information relative to the program and apply to be partners by downloading and completing the appropriate documents.

In the future, ATF will evaluate ways in which it may better utilize its resources to provide greater outreach to its existing partner agencies in order to promote greater utilization of the system. Also, NIBIN will determine ways in which non-partner agencies may have even greater accessibility to the program than it has today, through either existing NIBIN partner agencies or future system deployments. Finally, ATF will assess different ways in which NIBIN partner agencies may better recruit non-partner agencies within its region.

7. **Determine whether new technology exists that will improve the image quality of bullets enough to make it worthwhile for the participating agencies to spend valuable resources to enter the bullet data into NIBIN, and deploy the technology if it is cost-effective.**

ATF concurs with this recommendation.

Forensic Firearm Examiners have traditionally classified and identified ballistic evidence on bullets and cartridge casings from class and individual characteristics. The bullet class characteristics include the number of land and groove impressions, direction of twist, and the land impression width. The traditional method of ballistic examination requires the firearm examiner to optically compare evidence specimens, one by one, on a comparison microscope.

Each NIBIN user has received training in the areas of bullet and cartridge acquisition and evaluation. The process of entry and evaluation of bullets is inherently more complex compared to cartridge casings. To develop user agility for entry of bullets after training, NIBIN advocates repetitive entry of test fires, as well as damaged and fragmented bullets as this technique boosts user confidence and tempo of acquisition.

Assistant Inspector General for Audit

Firearm Examiners perform bullet comparisons by the use of comparison microscopes to view images that are two-dimensional, but have depth of field. In sharp contrast, when viewed on an IBIS system, the images are two dimensional with no depth of field. It may take several weeks or months before an examiner's visual acuity adjusts.

The ratio of bullet evidence to bullet test fire entries is minimal in contrast to cartridge casings. Entry of bullets by a trained but inexperienced examiner takes approximately eight to twenty minutes, even longer if the bullet is damaged or fragmented. In calendar years 2004 and 2005, NIBIN provided several remedial training sessions for NIBIN users on bullet entry and evaluation. User bias and lack of confidence on accurately entering bullets may be a contributing factor to the lack of bullet evidence entered to date.

NIBIN will periodically poll NIBIN users for their recommendations on possible IBIS equipment and/or software enhancements. NIBIN considers all user recommendations in its technological and operational decision-making process.

In consultation with FTI, manufacturer of IBIS, NIBIN and ATF laboratory staff are assessing new ballistic imaging products for possible inclusion into the NIBIN inventory. In the past calendar year, NIBIN tested an FTI product called "BrassTrax," an automated system for entering cartridge casings. Before ATF chooses to add "BrassTrax" to its NIBIN inventory, the system must meet information security requirements. Other technology for NIBIN's consideration is a fully automated 3-D bullet imaging system.

8. **Perform an analysis of the current RBI users, and any other potential users, to determine if they would use an improved system enough to warrant the additional cost. If the analysis concludes that another system would be cost-effective, then the ATF should pursue funding to obtain the system.**

ATF concurs with this recommendation.

This recommendation is presently under consideration. The current RBI usage is relatively low because small agencies have limited manpower resources and when available, frequently prefer to have firearms evidence evaluated and processed by larger laboratories. The more active RBI users have had varying degrees of success with the RBI as currently configured. Since the RBI is becoming obsolete, any replacement must not only meet the more stringent DOJ and ATF security standards, but also must be cost effective for the ATF. The current projected replacement units are being evaluated and tested to ascertain whether they can meet NIBIN Program standards and user needs. Currently in question is the performance, ability, additional support equipment required, standards planned by the manufacturer and the projected cost of the replacement units.

Assistant Inspector General for Audit

9. Provide guidance to partner agencies on the necessity to view correlations in a timely manner and to ensure that correlations viewed in NIBIN are properly marked.

ATF concurs with this recommendation.

NIBIN will reiterate to users "best practices" for data entry and evaluation. Use venues such as regional user meetings, the National Users Congress, NIBIN Contractor conference, and the NIBIN Web site will be utilized as a stage for stressing the importance of timely and accurate entry and correlation of both evidence and non-evidence entries.

NIBIN continues to monitor acquisition and non-viewed correlation reports to determine those partner agencies with backlogs.

10. Monitor the non-viewed correlations of partner agencies and take corrective actions when a backlog is identified.

ATF concurs with this recommendation.

NIBIN will monitor non-viewed correlation reports, in conjunction with monthly user data acquisition reports, to ensure correlation data is being assessed in a timely manner.

NIBIN continues to monitor acquisition and non-viewed correlation reports to determine those partner agencies with backlogs. NIBIN has recently required that the vendor integrate the non-viewed correlation data into the NIBIN monthly data acquisition report. This allows NIBIN to identify sites with backlogs within the non-correlation request.

11. Research ways to help the partner agencies eliminate the current backlog of firearms evidence awaiting entry into NIBIN. The research should consider whether the partner agencies can send their backlogged evidence to the ATF Laboratories or to other partner agencies for entry into NIBIN, and whether improvements to the efficiency of NIBIN would facilitate more rapid and easy entry of evidence.

ATF concurs with this recommendation.

Assistant Inspector General for Audit

Whenever time and funding have allowed, ATF Laboratory Services and NIBIN personnel have assisted partner agencies with backlogs of firearms evidence awaiting entry into NIBIN. IBIS Specialists, Firearms Examiners, Field Division staff and NIBIN contractors have traveled to various sites to inventory evidence backlogs, image ballistic evidence into the NIBIN database, and review correlation results. Unfortunately, ATF does not have the staff or budget to provide such assistance on a continuing basis. The three ATF Laboratories located in Washington, DC; Atlanta, Georgia; and Walnut Creek, California, do not have the staff or budget to allow for volumes of ballistic evidence to be processed and imaged into IBIS at these facilities. Further, some State and local agencies do not want to have their firearms evidence processed by a Federal agency.

Several ATF Field Divisions have assisted State and local agencies with grant applications under Project Safe Neighborhoods (PSN) to secure funding for additional laboratory positions and equipment. Many agencies that have applied for PSN grants have received substantial funding that has provided the additional manpower needed to support the NIBIN Program in their area. ATF and the NIBIN Program Office will continue to assist and support our partner agencies in securing funding wherever it is available to provide them with every opportunity to make this program a success in their laboratories and law enforcement agencies.

ATF has provided its partner agencies with the most state-of-the-art ballistic imaging equipment available. We will continue to work with FTI to ensure that our partner agencies have a seamless network on which to operate the IBIS units. The NIBIN Program will require additional funding in order to provide our partner agencies with new technology.

ATF will pursue every avenue necessary to support the partner agencies involved in the NIBIN Program.

12. Coordinate with Department of Justice law enforcement agencies that seize firearms and firearms evidence to help them establish a process for entering the seized evidence into NIBIN.

Partially concur.

On January 19, 2001, the week that they were leaving office, former Attorney General Janet Reno and former Secretary of the Treasury Lawrence Summers drafted a memorandum in which they state that all Treasury and Justice enforcement bureaus

Assistant Inspector General for Audit

"should enter bullets and shell casings found at a crime scene into NIBIN." The memorandum goes on to say, "Similarly, ballistic evidence recovered from crime scenes should be entered into NIBIN." We support this policy. It should be noted, however, that the memorandum requests that a policy be established to enter only "evidence" and does not mention test-fires from seized or recovered weapons. The memorandum also asks each agency to implement this directive.

ATF is presently conducting a pilot program to determine the most effective and efficient method to not only enter all ballistic evidence into NIBIN as the memorandum requests, but also to enter test fires of all weapons taken into ATF custody.

ATF will share with the other DOJ agencies what we learn from our pilot program in the Columbus, Ohio Field Division so they can use it to help establish a protocol and implement the memorandum's directive to participate in the NIBIN Program.

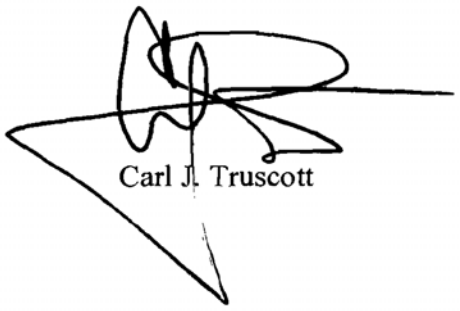
We feel that additional participation by other Federal law enforcement agencies will be of value. It is ATF's responsibility to educate other Federal law enforcement agencies concerning the value of NIBIN and provide information to them on how they can participate. We presently have placed NIBIN equipment with the FBI, Department of Defense, and the U.S. Fish and Wildlife Service. These agencies have the ability to participate fully in the program if they choose. We have also spoken on a national level with the Drug Enforcement Administration, as well as with most other Federal agencies on a local level and discussed entering their ballistic evidence into NIBIN.

As we complete our pilot program and implement it on a national level, we will contact other Federal law enforcement agencies and provide them with information and assistance in establishing their own protocol and methods for participating in the NIBIN Program.

Conclusion:

ATF will employ a well-balanced strategy to ensure that the NIBIN Program continues to meet and exceed the technological and programmatic needs of its partners. ATF faces a number of emerging challenges in the years ahead, which dictate that ATF utilize innovative solutions and technology in its strategies to accomplish the goals set. ATF will continue, in the years to come, to look for ways to improve its business practices.

If you have any questions regarding this response, please contact, Carol Campbell, Audit Liaison, Office of Professional Responsibility and Security Operations, at (202) 927-8276.



Carl J. Truscott

OFFICE OF THE INSPECTOR GENERAL, AUDIT DIVISION, ANALYSIS AND SUMMARY OF ACTIONS NECESSARY TO CLOSE THE REPORT

We provided the draft report to the ATF for comment. The ATF's response, included in this report as Appendix XV, agrees with each of our recommendations and proposes corrective action sufficient to resolve the recommendations. Our analysis of the status of the recommendations begins on page 141 of this appendix.

In its response to the draft audit report, the ATF stated that our use of the Originating Agency Reporting Identifier (ORI) number as the statistical basis to evaluate technology allocation, program utilization, and performance was misleading because a single agency can have numerous ORI numbers assigned to it. For example, the ATF stated that the ATF alone has over 362 ORI numbers, many of the larger NIBIN partner agencies have multiple ORI numbers, and all local law enforcement agencies have at least one ORI number, regardless of size.

We disagree with the ATF's contention that it is misleading to use ORI numbers as a basis to evaluate technology allocation, program utilization, and performance. We reported that as of January 2005, the NIBIN program had been deployed to 231 of the 38,717 law enforcement agencies or divisions of law enforcement agencies that had received an ORI number from the FBI. The 38,717 agencies or divisions of agencies were contained in the ATF's NIBIN database and used as the basis for NIBIN users to select the ORI number applicable to the agency, or agency division, submitting evidence for entry into NIBIN. At the end of our audit, NIBIN officials expressed to us concern about ORI numbers and said that a more realistic number of law enforcement agencies nation-wide was about 17,000. We asked the NIBIN officials for documentation to support the 17,000 number, but they could not provide support. Because 38,717 is the actual total of ORI numbers maintained in NIBIN as potential contributors of evidence into NIBIN, we continue to believe in the use of this number as a basis to evaluate technology allocation, program utilization, and performance.

The status of the recommendations and the actions necessary to close the recommendations are presented below.

1. **Resolved**. This recommendation is resolved based on the ATF's concurrence with the recommendation. However, the ATF's response did not adequately address actions it will take.

   The ATF response stated that the volume of ballistic evidence submissions for NIBIN entry cannot be the sole reason for deploying equipment to an agency and that numerous agencies identified as non-partner, high-usage agencies do not have forensic laboratories or the necessary staff that can support deployment of the IBIS equipment. The ATF also noted that some states, such as Virginia, have laboratory systems that support other law enforcement agencies with forensic evidence. Finally, the ATF indicated that without increased funding, the NIBIN Branch cannot purchase additional equipment to deploy to more agencies.

   Our report does not state that the volume of ballistic evidence submissions for NIBIN entry should be the sole reason for deploying equipment to an agency. We understand and accept that multiple factors must be considered in determining whether high-usage, non-partner agencies should be provided IBIS equipment. Also, some factors, such as lack of laboratory staff or equipment, may be overcome with the ATF's assistance in helping the agencies obtain funding through grants or other means, as the ATF indicated in its response to Recommendation 11. To implement this recommendation, the ATF needs to evaluate the circumstances surrounding each high-usage, non-partner agency to determine whether IBIS equipment should be deployed to the agency. If the ATF determines that it would be more cost effective and efficient for the non-partner agency to have its own IBIS equipment, the ATF should either redistribute equipment from low-usage partner agencies or request funding in its budget to purchase the additional equipment.

   The ATF response also stated that the NIBIN Program Office is addressing the issue of redistributing IBIS equipment from low-usage partner agencies. The ATF indicated that policies are in place to address low usage and that the ATF will continue to monitor low-usage sites and make determinations as to whether the equipment should remain.

   We noted in the audit report that the ATF has implemented a system to monitor low-usage of partner agencies. However, the system only involved looking at low-usage partner agencies to determine whether they were effectively utilizing the equipment. The ATF did not perform

routine analyses to determine whether high-usage, non-partner agencies could benefit from having their own IBIS equipment.

The recommendation can be closed when we receive documentation showing that the ATF has: (1) analyzed the high-usage, non-partner agencies to determine if any issues exist that could preclude the agencies from receiving IBIS equipment; (2) determined whether remedies exist to resolve these issues; and (3) either identified equipment from low-usage partner agencies that could be redistributed to eligible high-usage, non-partner agencies or included funding in its budget to purchase additional IBIS equipment for the eligible high-usage, non-partner agencies.

2. **Resolved**. This recommendation is resolved based on the ATF's agreement to identify the NIBIN partner sites needing direction for executing regional and national database searches and to provide remedial instruction to those partner sites. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

3. **Resolved**. This recommendation is resolved based on the ATF's agreement to: (1) perform random site audits to verify that NIBIN users are following the data entry protocols and procedures; and (2) reiterate the best practices identified during the site audits to the other users through on-site training, professional conferences, and meetings. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

4. **Resolved**. The ATF's response to the draft audit report stated that the software configuration for the NIBIN equipment will not allow a user to enter duplicate case identification numbers. However, our audit disclosed that, contrary to the ATF's assertion, two NIBIN partner agencies (Colorado Bureau of Investigation – Montrose and Rhode Island State Crime Laboratory) entered duplicate case identification numbers for its own cases. As a consequence, it was impossible to link the cases table to the evidence table for these agencies. A total of 2,801 records in the cases table for these two agencies contained duplicate case identification numbers. Of the total, 478 records were from the Colorado Bureau of Investigation – Montrose and 2,323 records were from the Rhode Island State Crime Laboratory.

   This recommendation is resolved based on the ATF's agreement to review data from the Colorado Bureau of Investigation – Montrose and the Rhode Island State Crime Laboratory to identify cases that necessitate electronic consolidation. The recommendation can be closed

when we receive documentation showing that the ATF has taken the planned actions and has corrected the duplicate case identification numbers in NIBIN.

5. **Resolved**. This recommendation is resolved based on the ATF's response showing it has reviewed the 12 agencies with high hit rates and determined that the high hit rates resulted because more than 50 percent of the images entered into NIBIN were evidence images, as opposed to non-evidence images from test-fired guns. The ATF determined that partner laboratories with lower hit rates were found to have an abundance of test-fire images and not evidence images from crimes in NIBIN. The recommendation can be closed when we receive documentation that the ATF has informed all the partner agencies of the results of their review and stressed to the partner agencies the importance of entering as much crime evidence into NIBIN as possible.

6. **Resolved**. This recommendation is resolved based on the ATF's agreement to: (1) evaluate ways to better utilize its resources to provide greater outreach and promote greater utilization of the system, (2) determine ways in which non-partner agencies may have greater accessibility to the program through either existing NIBIN partner agencies or future system deployments, and (3) assess different ways in which NIBIN partner agencies may better recruit non-partner agencies within their regions. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

7. **Resolved**. This recommendation is resolved based on the ATF's agreement to: (1) periodically poll NIBIN users for their recommendations on possible IBIS equipment and software enhancements; (2) consider all user recommendations in its technological and operational decision-making process; and (3) assess new ballistic imaging products, such as "BrassTrax" (an automated system for entering cartridge casings), for possible inclusion into the NIBIN inventory. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

8. **Resolved**. This recommendation is resolved based on the ATF's agreement to evaluate and test replacement units for the current RBI units to ascertain whether the replacement units meet NIBIN program standards and user needs. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

9. **Resolved**. This recommendation is resolved based on the ATF's agreement to: (1) reiterate to users "best practices" for data entry and evaluation; (2) use venues such as regional user meetings, the National

Users Congress, NIBIN contractor conference, and the NIBIN web site for stressing the importance of timely and accurate entry and correlation of both evidence and non-evidence entries; and (3) continue monitoring acquisition and non-viewed correlation reports to determine partner agencies with backlogs. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

10. **Resolved**. This recommendation is resolved based on the ATF's agreement to: (1) monitor non-viewed correlation reports, in conjunction with monthly user data acquisition reports, to ensure correlation data is being assessed in a timely manner; and (2) continue monitoring acquisition and non-viewed correlation reports to determine partner agencies with backlogs. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

11. **Resolved**. In its response, the ATF indicated that in the past it has assisted partner agencies by sending IBIS Specialists, Firearms Examiners, Field Division staff, and NIBIN contractor staff to various sites to inventory backlogs, image ballistic evidence into NIBIN, and review correlation results. However, the ATF stated that it does not have the staff or budget to provide such assistance on a continuing basis. The ATF also stated that several ATF Field Divisions have assisted State and local agencies with grant applications under Project Safe Neighborhoods to secure funding for additional laboratory positions and equipment. This recommendation is resolved based on the ATF's agreement to: (1) assist and support partner agencies in securing funding wherever available to obtain staff and equipment to help reduce the backlog of firearms evidence awaiting entry into NIBIN, and (2) work with the NIBIN contractor to ensure that partner agencies have a seamless network on which to operate the IBIS equipment. The recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.

12. **Resolved**. This recommendation is resolved based on the ATF's statement that it: (1) is presently conducting a pilot program in its Columbus, Ohio, Field Division to determine the most effective and efficient method to not only enter all ballistic evidence into NIBIN as required by the Attorney General's and the Secretary of the Treasury's January 19, 2001, memoranda, but also to enter test-fires of all weapons taken into ATF custody; and (2) will share with other Department of Justice agencies what it learns from the pilot program to help the other agencies establish a protocol for implementing the Attorney General's directive to participate in the NIBIN program. The

recommendation can be closed when we receive documentation showing the ATF has taken the planned actions.