



STRONGER SCIENCE, SAFER STREETS

D.C. Department of Forensic Sciences | 2016 Annual Report



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Message From Mayor Muriel Bowser



Dear Residents:

Our crime lab has had an incredible year, and we have seen firsthand what a healthy infusion of support, funding, and guidance can do.

Over the past year, the Department of Forensic Sciences (DFS) dramatically improved services in its Forensic Science Laboratory Division (FSL), Forensic Biology Unit (FBU), and its Latent Fingerprint and Firearms Examination (FEU) units. The FBU re-initiated DNA testing by implementing an intense training program conducted by national and international experts in DNA mixture analysis, directing adequate resources to purchase and validate appropriate software tools, and ensuring adherence to a strict re-certification regime. Following an external audit that confirmed compliance with National DNA Standards, DFS DNA testing resumed on February 18, 2016. Subsequently, DFS informed all stakeholders that DNA testing had resumed and that the agency had become the seventh laboratory in the United States to implement this new approach. DFS is now a leader in the field of forensic DNA testing.

The FEU and FSL units strategically utilized increases in funding for contractors to reduce case backlogs, increase entries and verifications associated with our federal intelligence databases (NIBIN, AFIS and CODIS), and ensure efficient turn-around times in both units. In addition, the Crime Scene Sciences Division (CSSD) initiated a major effort to civilianize crime scene response as committed in my Safer, Stronger DC plan. In August 2016, DFS worked closely with the Metropolitan Police Department (MPD) to merge crime scene operations, allowing the first round of MPD officers to return to assignments in precincts across Washington. New legislation as part of my Administration's Safer Stronger initiative allowed DFS to attract and hire retired MPD officers to fill civilian crime scene positions, ensuring retention of valuable crime scene experience.

DFS plays a critical role in keeping our community safer and stronger. It is thanks to the hard work, forward thinking, and commitment of the leadership and staff at DFS that the pages in this report are filled with so many accomplishments.

Sincerely,

Muriel Bowser
Mayor



Stronger Science, Safer Streets.

MESSAGE FROM THE AGENCY DIRECTOR, DR. JENIFER SMITH



I am pleased to report that in 2016, the Department of Forensic Sciences (DFS) utilized enhanced resources, provided by Mayor Muriel Bowser, to reduce violent crime and property crime; providing safer streets for DC citizens and visitors. Delivery of high-quality, timely, accurate, and reliable forensic science services, with the use of best practices and best available technology to critical public justice stakeholders, is the mission of DFS.

In order to achieve our mission, I set key goals for myself, my executive team and my staff, which were to emphasize strong management and fiscal responsibility; strengthen communication and collaboration between the Department and key agencies - while maintaining scientific integrity and independence; ensure the workforce has the necessary training, tools and infrastructure to perform their duties efficiently and effectively; and conduct and deliver the highest quality testing and results. To meet these goals, we designed and completed an overhaul of the DFS organizational structure, based on a review of the responsibilities of all management positions, as well as caseloads and activities for all DFS units. We worked closely with the DC Department of Human Resources to submit a substantial realignment

package to repurpose positions and restructure or create new functional units. All executive positions were filled with highly qualified individuals who led DFS through our substantial growth.

An experienced team of in-house quality professionals and training specialists, led by the DFS Deputy Director, provided oversight of all DFS units to ensure that there are quality driven results, and the DFS workforce is highly trained and skilled in delivering appropriate forensic and public health scientific programs. The DFS training program delivered over 2,200 hours of trainings, covering issues such as cognitive bias, quality assurance, as well as discipline

Delivery of high-quality, timely, accurate, and reliable forensic science services, with the use of best practices and best available technology to critical public justice stakeholders, is the mission of DFS.



specific topics for DNA, firearms, fingerprint examiners and public health lab scientists. A seven week CSS Training Academy for the cohort of new CSS employees delivered training on forensics collection and preservation techniques. The DFS Quality unit successfully led DFS through all external audits. All FSL units continue to maintain ISO/IEC 17025:2005 accreditation and PHL successfully demonstrated compliance with the Centers for Medicare & Medicaid Services' Clinical Laboratory Improvement Amendments (CLIA) regulatory guidelines as well as the Centers for Disease Control and Prevention's, Division of Select Agents and Toxins (DSAT).

DFS held several outreach efforts, for both critical stakeholders and the community, to enhance awareness of the changes being made at the agency. These efforts ranged from biweekly operational meetings with critical customers, to educational events such as "Classrooms to Careers" (an immersive day at DFS with demonstrations for students from Marion Barry's Summer Youth Employment Program) and lastly, DFS's first National Forensic Science Week.

We are actively re-building our reputation as an agency of scientific integrity and stability with our partners and DC residents.

We are actively re-building our reputation as an agency of scientific integrity and stability with our partners and DC residents. It has been a year of forward progress fueled by the efforts of many parties. First I must acknowledge Mayor Bowser and her staff for their continuous and generous support given to DFS, so that we can realize her vision. Deputy Mayor Donahue, his staff and our public safety partner department leaders have all played major supporting roles to improve DFS. I must acknowledge the efforts of the women and men who work within the offices and laboratories of DFS. Tables, charts and graphs do not adequately tell the full story of their untiring efforts to make DC a safer city. I do not lead alone; I am superbly supported every day by my executive staff: Deputy Director Brittany Graham, Chief Operating Officer Yi-Ru Chen, Laboratory Directors Karen Wiggins, Troy Kelly, Dr. Anthony Tran, General Counsel Rashee Kumar and Public Information Officer LaShon Beamon as well as my Executive Assistant, Herbert Thomas.

This report provides the details concerning DFS's activities in 2016: a year of growth in resources, capability, responsibility and a year of delivering sound science to a safer, stronger DC.

WE ARE DFS!



Agency Events

Emancipation Day, National Forensic Science Week, Purple Day



Emancipation Day Walk



Emancipation Day Walk



Emancipation Day Speaker



National Forensic Science Week



National Forensic Science Week



DFS Purple Day
(DOMESTIC VIOLENCE AWARENESS)



DFS Purple Day
(DOMESTIC VIOLENCE AWARENESS)



Agency Events

DC One Fund Kickoff, CFL All Hands Training, Thanksgiving Potluck



DC One Fund Kickoff



DC One Fund Kickoff



DC One Fund Kickoff



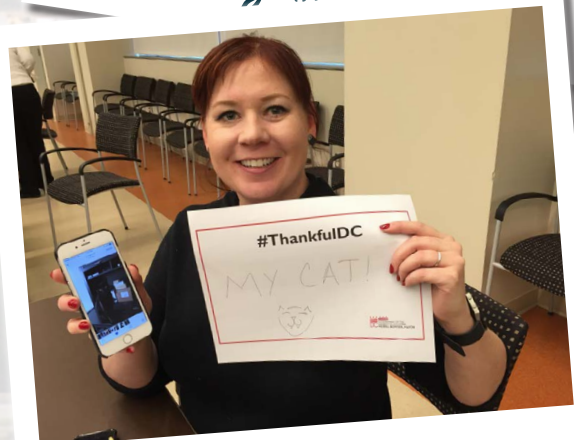
CFL Training



CFL All Hands Training



Thanksgiving D.C.



Thanksgiving Potluck



Agency Events

Family Day



Family Day



Family Day



Family Day



Family Day



Family Day



Family Day



Family Day



WHOLE AGENCY

Safer Stronger Breakdown

The Department of Forensic Sciences received one-time supplemental funding, in the amount of \$8 million, and 50.75 full-time employees (FTEs) in November 2015 as part of Mayor Bowser's District-wide Safer Stronger DC plan, supported by the DC Council.

\$4.3M went towards supporting the Forensic Science Laboratory for DNA testing, reducing the backlog in Firearms and Fingerprints examination and integrating the Laboratory Information Management System (LIMS). LIMS is a critical tool for tracking case-related information and chain-of-custody process throughout all the laboratories within the Department. This investment has been successful. DNA testing resumed in February 2016, productivity has increased in the Firearms and Fingerprints units and the LIMS has been integrated.

The remaining \$3.7M and 38 FTEs went towards supporting the expansion and civilianization effort of the crime scene evidence search and processing. The Metropolitan Police Department's (MPD) sworn officers, assigned to their Crime Scene Investigative Division (CSID), have been gradually returned to MPD for other law enforcement duties, as DFS continues to hire civilian crime scene scientists. In the Summer of 2016, MPD Chief, Cathy Lanier, and City Administrator, Rashad Young, approved a temporary provision of one-time funding from MPD, to allow DFS to hire an additional 22 temporary crime scene scientists in FY17. The 22 temporary CSS positions were added in September 2016 and are on target to be filled by April 2017.

Additionally, the investment allowed DFS to ensure support staff were hired and services were provided to support the increased workload in the following areas:

- the training and certification requirements of scientists
- the accreditation requirement for our laboratories
- the legal and discovery requests
- the procurement activities, inventory management and support services for the laboratories and staff
- the hiring and comprehensive onboarding of new employees

In the Mayor's FY17 Budget, approved by Council, the \$8M funding and FTEs were made a permanent part of DFS's ongoing budget and continued to support the Safer Stronger DC plan for Calendar Year 2016.

Support to Mayor Bowser's Safer Stronger DC Plan

Activity	Supplemental Obligations	Achievements
FBU DNA Outsourcing	\$1,003,865	220 sex kit cases outsourced 635 non-sex kit cases outsourced
LFU Contractors	\$964,000	Completed 511 cases to date
FEU Contractors	\$629,043	Decreased TAT from 110 days to 20 days Decreased Backlog from 1254 to 1208
Crime Scene Vehicles	\$127,696	Purchased five vehicles
3D Scanners for Homicides	\$199,495	Purchased three 3D Scanners
Hiring of CSSD FTEs	37 FTEs	23 hired to date 14 in the hiring process

A total of \$4.3 million supplemental funds were spent to re-initiate DNA testing, reduce backlogs in LFU and FEU, outsource DNA cases and implement LIMS.



Finalizing Key Management Positions

In calendar year 2016, DFS underwent a realignment process that moved the authority reporting lines under an updated organization structure. The

realignment allowed DFS to update the organization structure to have one Deputy Director position, who oversees both the Quality and Training portfolio. We additionally realigned the former Deputy Director for Information Technology to the Unit Manager for Information Technology, and created a new Forensic Technology Unit, combining the information technology staff with the Digital Evidence unit staff, to support the growing IT needs of our agency. Also, under the Chief Operating Officer, program management positions were created for a more efficient management structure. These changes helped DFS hire over 60 new employees in calendar year 2016, and increased the need for support activities and support services agency wide.

Through a competitive and open application process, supported by DCHR, DFS successfully filled the following key management positions:

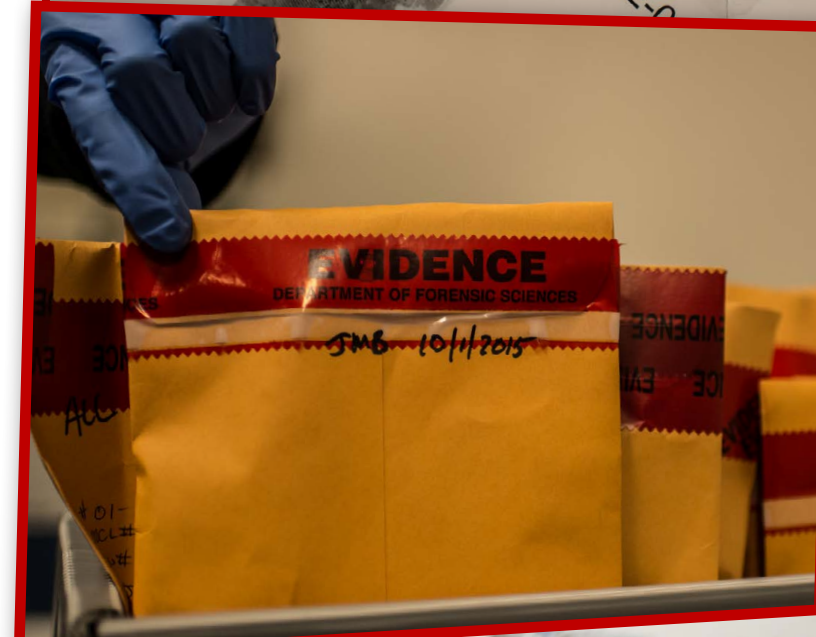
- **Deputy Director**, Brittany Graham
- **Forensic Science Laboratory Director**, Karen Wiggins
- **Crime Scene Sciences Division Director**, Troy Kelly
- **Public Health Laboratory Director**, Dr. Anthony Tran

Additional vacant unit manager positions were also filled:

- **Forensic Science Laboratory Division, Forensic Biology Unit (FBU) Manager**, Andrea Borchardt
- **Crime Scene Sciences Division, Crime Scene Sciences Unit (CSSU) Manager**, Grant Greenwalt

DFS Dashboard

The DFS Dashboard was developed, and implemented by staff, to draw from DFS' Laboratory Information Management System's (LIMS) data. The Dashboard serves as a real-time management tool, to allow for the high level views of key performance indicators (KPI) by unit or activity. The KPI's include the volume of cases submitted, the number of evidence items collected and the number of requests for service. Also, KPIs measure our ability to turn cases around within the target times and track submission of examination results from the Latent Fingerprints Unit, Forensic Biology Unit and the Firearms Examination Unit to national intelligence databases for comparison. This tool will assist managers in running their units, managing caseloads more efficiently, and providing best value forensic science to our stakeholders.





Digital Evidence Unit

The Digital Evidence Unit (DEU), responsible for extracting and analyzing digital evidence, introduced two new testing capabilities this year, neither of which are common in the United States nor were available to District investigations other than in exceptional circumstances.

NEW TECHNOLOGIES

The first new capability is the ability to extract and analyze data from motor vehicles. Modern motor vehicles have several computers to monitor and control various functions of the motor vehicle. For example, higher specification models of Mercedes Benz may have 50 or more computers on each vehicle. Some of the functions might include global positions system (GPS), entertainment, cell phone link, braking and other events such as the opening and closing of doors. All the computers are linked to the infotainment system. With the correct tools and training, the data can be extracted and interpreted concerning any events in which the vehicle may have been involved. This capability has been applied to four criminal investigations since its very recent introduction.

The second new capability is the ability to extract and read data directly from the hardware of cell phones. Cell phone examinations are usually conducted using software tools. The software tools command the cell phone to send a copy of its data to the analyst, but many cell phones are resistant to these commands. Using a special technique called 'chip-off,' which requires specialized equipment and training, the main chip in the phone that stores the data is physically separated from the phone and the outer protective layers of the chip are removed using a very fine grinding process. This exposes the inner workings of the chip, allowing the digital evidence expert to directly interact and extract the data. This capability has been applied to ten criminal investigations since its very recent introduction.

As awareness of these capabilities grows among investigators, and with the continued introduction of these technologies in motor vehicles and cell phones respectively, the DEU expects the demand for these capabilities to increase rapidly.

DEU IN ACTION

In the past year, DEU has been involved in several interesting cases. This evidence type has made a significant impact on the investigations. Of the 257 requests DEU has received so far, the following cases are some of the highlights:

- DEU provided assistance in the Comet Ping Pong Pizza investigation. DEU staff examined and identified the suspect's cell phone, that contained additional material concerning the circumstances of the case. One of the notable elements of the case was the rapid response by DEU that allowed the investigation to progress quickly.
- DEU provided assistance to an investigation by the Office of the Inspector General into the bankruptcy of the D.C. Children and Youth Investment Trust. This has resulted in 120 requests for work and a substantial commitment by DEU.
- DEU provided assistance to the Office of the Chief Technology Officer on a cybersecurity investigation. DEU was able to identify the cause of a significant cybersecurity breach within 24 hours. This cybersecurity investigative capability is not within OCTO's current abilities and they were very surprised and appreciative of DFS assistance.

LABORATORY INFORMATION MANAGEMENT SYSTEM CASE INFORMATION:

The DFS Laboratory Information Management System, or LIMS System, is the central nerve of the agency. LIMS records all case related information such as when DFS took possession of evidence; what evidence was collected; the chain of custody as evidence was moved from one person to another; what testing was performed; and the test results.



8,576

Cases Responded To;



18,727

Service Requests;
(Crime Scene Response,
Evidence Analyzed/Tested)



101,175

Evidence Items Received

**This data reflects LIMS case information from January 1, 2016 to December 31, 2016*



CSS: Crime Scene Sciences

Crime Scene Sciences Growth

The Crime Scene Sciences Division (CSSD) is responsible for the collection and preservation of evidence from crime scenes in the District of Columbia and the storage and distribution of evidence while it is present within the department. These services are provided 24 hours a day, 7 days a week, 365 days a year. CSSD consists of two units, the Crime Scene Sciences Unit (CSU) and the Central Evidence Unit (CEU).

The Crime Scene Sciences Division (CSSD) has undergone several changes, in the past year, to include, the appointment of a new CSS director, Troy Kelly; staffing increases; DFS Academy trainings; metrics development and the MPD merger process.

We have been able to step-up and finally make a down payment on the investments that this relatively new agency needs to be fully functional as part of our critical public safety infrastructure in the District.

*- Mayor Muriel Bowser
January 4, 2016*

As part of the Mayor's "Safer Stronger" plan, one time supplemental funding was provided to DFS by the Mayor and approved by the City Council in FY16. In total, 38 full-time employees (FTEs) were provided to CSSD—32 for CSSU, and 6 for CEU. Permanent funding was provided in the FY17 budget for all 38 FTEs in CSSD. In FY17, MPD provided one time funding to DFS to hire 22 temporary crime scene scientists to bring the total CSSU complement up to 77 total. The total 77 FTEs, supporting the streets of DC, will meet the optimal levels required to retain all crime scene duties and transition from Metropolitan Police Department Crime Scene Investigative Division (MPD CSID). As part of this substantial growth, CSS staff started gathering metric data sets regarding turnaround time on casework, and performance based trends, to justify the need for additional staff, and assist DFS in leading the way in

supporting stakeholders. The CSSU also worked with the Office of the Chief Medical Examiner's (OCME) Mass Fatality exercise as a force multiplier. CSSD underwent a new staffing plan to support the 4 day 10 hour operations, which reduced costs and increased quality production in casework.

The DFS CSSU "Safer Stronger" merger with MPD was successful in FY16. MPD was able to return CSID officers to other law enforcement duties, as more DFS Crime Scene Scientist were deployed to more scenes to search and collect evidence. Those remaining CSID members continue to support crime scenes, law enforcement duties, and support the mentoring of the new hires within

CSSU. The merger process is projected through FY18; however, with the new hires completing training, there will be a 'one for one' transition of MPD CSID with fully trained CSSU new hires. The goal is to have all CSID transitioned back to MPD at the beginning

of FY18 or sooner, depending on the training completion and CSSU members being signed off on competency, for specific roles within the position description. Once the transition is completed, DFS CSSU will have 77 FTE Crime Scene Scientists supporting the streets of the District 24/7/365 and will no longer have MPD CSID as part of the detail. As we build the DFS CSSU team, we opened the opportunities for retired MPD CSID members to apply for positions with DFS. We have hired six MPD retired members, and plan to reach out with any open positions, thus allowing DFS to maintain a solid experience foundation and support the growth of new members through mentoring.

The future of DFS Crime Scene Sciences Division is bright and will continue to support DC with a professional, mission focused approach, that ensures stakeholder support.



PHL: Public Health Laboratory

Mosquito Surveillance

During 2016, the Public Health Laboratory (PHL) division monitored arbovirus activities in the District of Columbia from the first week of April to the end of October. The PHL tested a total of 1282 mosquito pool samples during this time period. This is a 30% increase from 2015. The PHL added three viruses: dengue, chikungunya, and Zika to the testing panel in addition to West Nile virus (WNV). This enhanced virus screening panel is designed for the detection of any domestic Zika virus carried by mosquitoes in local areas. There were a total of 37 positive WNV mosquito pools detected in 2016. No positive mosquito pools for dengue, chikungunya, or Zika virus were identified. July and August were the months during which the rate of positive mosquito pools for West Nile Virus were the highest. 7.4% of mosquito pools in July and 7.7% of mosquito pools in August were positive for WNV.

In 2016, D.C. ward 7 had the highest rate of positive WNV mosquito pools (7.3% of mosquito pools were positive for WNV), followed by D.C. ward 5 (4.9% of mosquito pools were positive for WNV).

The results of the 2016 mosquito surveillance from the PHL indicate that no Zika, dengue, or chikungunya virus circulated in any of the mosquito pools tested in 2016. Additionally, there was less WNV mosquito activity in the D.C. area in 2016 compared to the previous 2015 surveillance year.

Human Zika Testing

The District of Columbia Department of Forensic Sciences Public Health Laboratory (DC-PHL) has been providing Zika virus testing, for patients seen by DC health care providers, since January 2016.

The Forensic Chemistry Unit (FCU) has made significant progress in 2016. When District leaders noticed a significant uptick in the use of synthetic drugs, DFS responded and began to test evidence for the presence of Controlled Dangerous Substances (CDS). In addition, a collaborative effort between the Office of the Attorney General (OAG) and the FCU led to the passage of the SAFE DC Bill, the District's first comprehensive controlled substances bill that classifies several synthetic drugs into categories, fundamentally changing the way drugs may be prosecuted within the District. As 2016 progressed, the operational capability of the CDS laboratory has grown substantially.

THE STANDING UP AND OPERATIONALIZING OF THE DISTRICT'S DRUG LAB

- ✓ The CDS Laboratory has been completed and is fully running, including the validations of analysis for multiple categories of synthetic cannabinoids and synthetic opioids.
- ✓ A lead chemist with extensive forensic chemical experience has been hired, trained and competency assessed to support operations in the FCU.
- ✓ Laboratory documentation has been completed and undergoing extensive vetting.
- ✓ The FCU has received both a federal DEA schedule 1-5 permit and passed DC inspection for a Schedule 1-5 drug permit.
- ✓ FCU has performed analyses on 21 samples in 2016 for our stakeholders, including the Department of Corrections (DOC) and Metropolitan Police Department (MPD).
- ✓ The FCU has provided technical guidance on drug classification on nine occasions to the United States Attorney's Office (USAO), MPD and DOC.
- ✓ The FCU has established a working relationship with the Drug Enforcement Agency (DEA) to bring on a senior visiting scientist, from the DEA, to provide on-site assistance in process flow and quality review of the unit.



In 2017, the FCU will continue method and process improvements and on-going support of stakeholders' testing requests. Additionally, the FCU intends to undergo accreditation to the ISO/IEC-17025 forensic testing standard by late 2017.



FSL: Forensic Science Laboratory

About the Forensic Science Laboratory Division (FSL)

The DFS Forensic Science Laboratory Division (FSL) collects, examines, analyzes and reports on physical evidence submitted in criminal cases. The FSL performs high quality forensic testing on evidence submitted by the DFS Crime Scene Sciences Division, local DC government agencies, such as the Metropolitan Police Department and surrounding federal entities. Currently, the FSL offers Latent Fingerprint (LFU), Forensic Biology (FBU), and Firearms Examinations (FEU). Each FSL unit reports all test findings to DFS customers to assist them in their criminal investigations and/or legal proceedings. The Forensic Intelligence Unit (FIU) is a newly formed unit that will be fully functional in FY17 (see page 23). Below is a summary of each unit's current capabilities.

Latent Fingerprint Unit (LFU): This unit focuses on the examination of unknown latent prints, left behind on objects in crime scenes, to determine if they are able to be compared. This examination provides a comparison of unknown latent prints to known prints to determine if there is an identification or exclusion. The LFU utilizes the AFIS (Automated Fingerprint Identification System) to provide intelligence information to customers by searching applicable unknown latent prints against

known individual's prints found in the database to determine if there is a "match."

What has helped us the most is the additional resources at the forensic lab. The forensic laboratory is turning around evidence to us very quickly; getting it to back to detectives and that helps us move cases much much more quicker. So, a dramatic improvement in what we are seeing coming out of the forensic lab.

-Police Chief Cathy Lanier

Discussing recent case closures at a press conference in December 2015

Forensic Biology Unit (FBU): This unit focuses on the analysis of biological tissues, such as blood, semen or skin for morphological and genetic characteristics. When compared to reference samples from a known source, modern forensic DNA analysis can be extremely specific about establishing identity. The FBU also uses CODIS (Combined DNA Index System) capabilities to search DNA profiles to possibly link serial violent crimes to each other and to known offenders.

Firearms and Toolmarks Examination Unit (FEU):

This unit focuses on the examination and comparison of firearms, of all types, as well as the toolmarks left when a harder object comes in contact with a softer one. Firearms are used in many types of crimes, such as homicides, robberies and assaults. The FEU evaluates the functionality of firearms, distance determination (from muzzle to target) and the comparison of bullets and cartridges to determine possible sources for firing. The FEU utilizes the NIBIN (National Integrated Ballistic Information Network) system to determine if there are any correlations between submitted cartridge casings and casings stored in the system's database.





Latent Fingerprint Unit

The Latent Fingerprint Unit made edits to its Standard Operating Procedures: LFU04, LFU06, LFU07, LFU09 and LFU11, to streamline processes,

improve efficiency and reflect changes made by the implementation of LIMS JusticeTrax. This unit has also updated the process of searching latent prints in the regional NOVARIS (Northern VA) and RAFIS (Prince George's and Montgomery Co., Maryland) databases and developed and implemented a process to begin searching latent prints in the national FBI Next Generation Identification system database. This has resulted in an increase in database "hits" and has enabled LFU to pass on valuable intelligence information to DFS customers, assisting in solving criminal cases.

Supplemental funds, provided to the unit, enabled the LFU to hire up-to-seven contractors, to assist with the high volume of requests and latent evidence submitted to the unit. With the assistance of these contractors, the turnaround time of cases decreased, while production increased, which made it possible for the LFU to chip away at the backlog of evidence submissions (Figure 1). The additional analysts allowed priority for cases to be completed in an expedited manner and for more latent prints to be entered into AFIS, which helped to increase the number of "hits" (Figure 2).

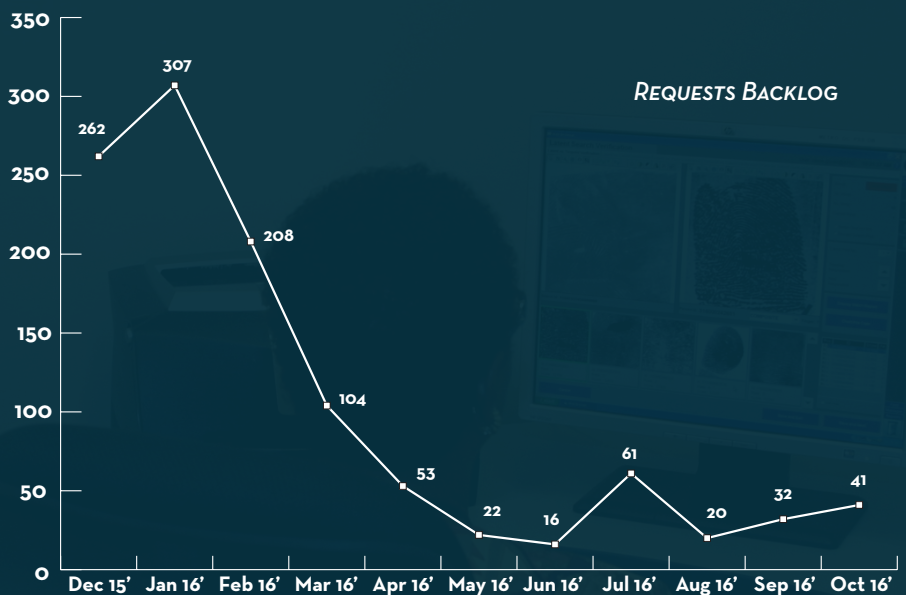
LFU PRODUCTIVITY

REQUESTS COMPLETED
vs.
REQUEST BACKLOG



REQUESTS COMPLETED

Staff = 38% Contractors = 62%

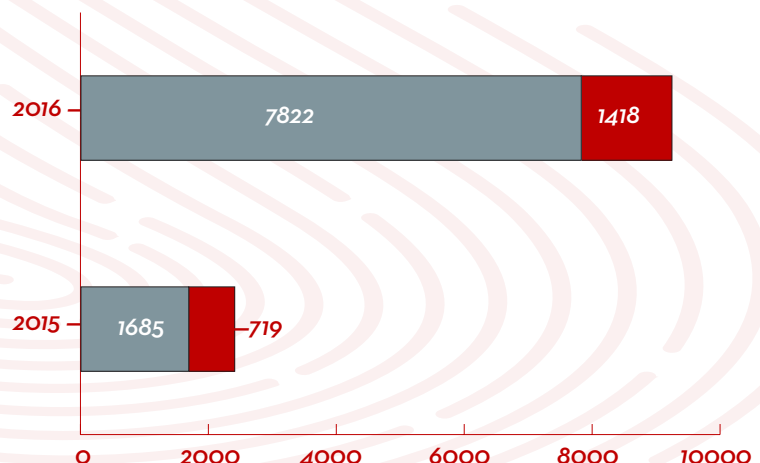


AUTOMATED FINGERPRINT IDENTIFICATION SYSTEMS (AFIS)

(AFIS)

JANUARY – DECEMBER

Entries Hits





Finally, LFU has developed and implemented LIMS worksheets, for all LFU casework, to streamline case documentation. With the implementation of these worksheets, performance reports were created, with the assistance of the DFS Forensic Technology Unit. These reports allow for the collection and reporting of statistics related to unit productivity, employee performance and case results.

USAO PRESS RELEASE MENTION

The Latent Fingerprint Unit, significantly contributed to the District by working cases to develop useful intelligence information to assist the United States Attorney's Office and the Metropolitan Police Department in closing criminal cases. See press release and case examples below.



U.S. Department of Justice

Channing D. Phillips
United States Attorney for the
District of Columbia
Judiciary Center
555 Fourth St. N.W.
Washington, D.C. 20530

PRESS RELEASE

FOR IMMEDIATE RELEASE
Thursday, January 5, 2017

For Information Contact:
Public Affairs
(202) 252-6933
<http://www.justice.gov/usao/dc/index.html>

District Man Sentenced to Prison for Armed Robbery Of Couple at Gas Station in Northwest Washington Defendant and an Accomplice Stole Victims' Car

WASHINGTON – Ojahri Hart, 19, of Washington, D.C., was sentenced today to four years in prison for robbing a couple at gunpoint of their car at a gas station in Northwest Washington, U.S. Attorney Channing D. Phillips announced.

Hart pled guilty in September 2016, in the Superior Court of the District of Columbia, to armed robbery. He was sentenced by the Honorable Juliet McKenna. Judge McKenna sentenced Hart to a total of 72 months in prison, but suspended all but 48 months of that time on the condition that he complete three years of supervised probation following his release.

According to the government's evidence, Hart and an accomplice, who were both armed with handguns, robbed the couple of their 2002 Cadillac DeVille at 2 a.m. May 20, 2016, at a gas station in the 7000 block of Blair Road NW. The male victim was pumping gas, and the female victim was inside the car. Hart and his accomplice seized the car at gunpoint and rode away.

The vehicle was found about 10 hours later in the 100 block of Longfellow Street NW, within three or four blocks of the defendant's home. Two purses were missing from the vehicle, one from inside the car and one from the trunk. Latent fingerprints were recovered from the vehicle. An examination by the Latent Fingerprint Unit of the District of Columbia Department of Forensic Sciences revealed that Hart was the source of a palm print found on the trunk of the vehicle and a fingerprint found on the inside back portion of the driver's side door handle.

No one else has been arrested in the investigation.

In announcing the sentence, U.S. Attorney Phillips commended the work of those who responded to the crime and investigated the case from the Metropolitan Police Department's Fourth District. He also expressed appreciation for the work performed by the District of Columbia Department of Forensic Sciences. Finally, he acknowledged the efforts of those who worked on the case from the U.S. Attorney's Office, including Assistant U.S. Attorney Michael J. Romano, who investigated and prosecuted the matter.

17-02

LFU IN ACTION



Using the Automated Fingerprinting Identification System (AFIS), LFU was able to match defendant Michael Carter to over ten different Burglary One (B-1) and Burglary Two (B-2) cases within the last year. In September, Carter pled guilty to two counts of B-1 crimes and four counts of B-2 crimes.



LFU was also able to match defendant Delonte Harrison to over four different B-2 cases reported between November 2015 and April 2016. In May 2016, MPD was able to make an arrest of Harrison on two counts of B-2 crimes.



Firearms Examination Unit

ATF PARTNERSHIP

In an effort to improve NIBIN efficiency, the US Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) NIBIN National Correlation and Training Center (NNCTC) began performing NIBIN Leads on April 18, 2016. This task, formerly occupied the time of one full-time examiner. Now, that position is fully dedicated to the verification of leads. Leads have increased considerably (Figure 2). Additionally, the increase in leads has led to more verifications being performed, increasing the total unit output (Figure 1). Laboratory Information Management System (LIMS) updates to NIBIN verifications have been designed and implemented to provide more accurate statistical measures of unit output.

QUALITY CONTROLS

In response to the findings of the ANSI-ASQ National Accreditation Board (ANAB) surveillance visit, the Serial Number Chemical Quality Control Check Box was put into place to consolidate information recorded in LIMS' case notes for Serial Number Restoration testing procedures. Standard Operating Procedures for Examination of Firearms, Test Fire, NIBIN Use, Examination of Ammunition, Serial Number Restoration, and Report of Examination, as well as the unit Quality Assurance Manual, were edited for more accurate and concise guidance on unit procedures.

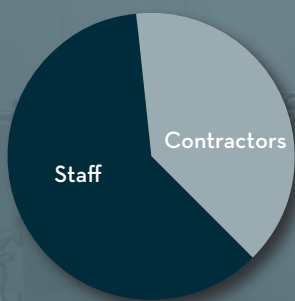
UNIT GROWTH

A Lunch and Learn Speaker Series were organized for quarterly education and teambuilding; the first of this series invited a guest speaker from the Prince George's County firearms unit to speak about opportunities to invest in field research.

Also, additional expanded workstations were built to accommodate future personnel needed to expand unit service testing.

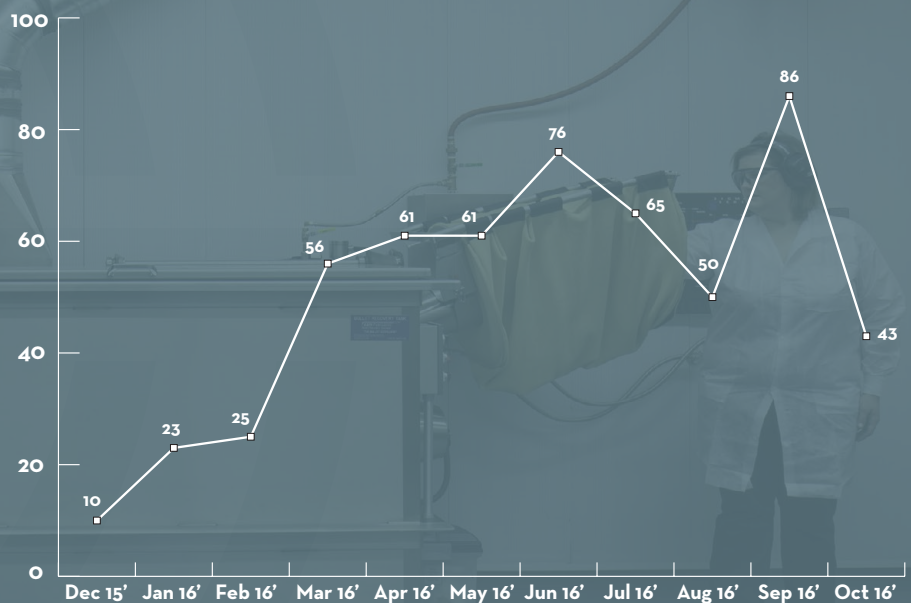
FEU PRODUCTIVITY

FEU REQUESTS COMPLETED
BY MONTH



REQUESTS COMPLETED: DEC. 2015 – OCT. 2016

Staff = 61% Contractors = 39%



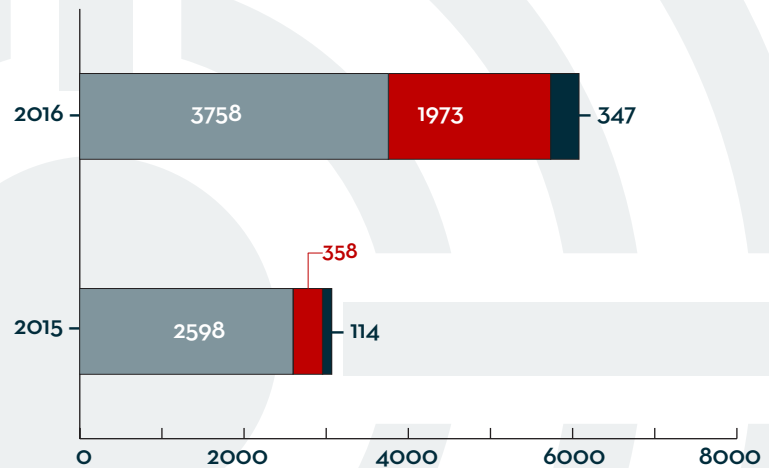
COMPLETED CUSTOMER REQUESTS



FEU – NATIONAL INTERGRATED BALLISTIC INFORMATION NETWORK (NIBIN)

JANUARY – DECEMBER

■ Entries ■ Levels ■ Hits



FEU IN ACTION

- With the use of NIBIN, FEU was able to confirm that a 9mm pistol, recovered in April 2016 by MPD, was the same firearm used in a Maryland homicide in October 2015.
- On December 20, 2016 a firearm was seized in connection with a possession with intent to distribute charge. This firearm was submitted to the DFS for analysis. A test fired cartridge case, from this firearm, was subsequently entered in the NIBIN database. A NIBIN Lead was developed between the seized firearm and a cartridge case collected at the homicide scene two years earlier. The evidence was microscopically compared and confirmed as a Hit by a firearms examiner from the DFS Sciences.



Forensic Biology Unit

RESUMPTION OF DNA TESTING

The Forensic Biology Unit recommenced casework after a self suspension following the discovery of a quality issue relating to the interpretation of DNA results, where samples contained DNA from more than one person. The FBU staff underwent six months of intensive full-time training conducted by national and international experts in DNA mixture analysis, before restarting operations.

The analysis tool, STRMix, was also implemented and is considered the most advanced method for mixture calculations, placing the FBU at the forefront of DNA analysis and interpretation. This software has increased FBU's ability to interpret data, from more samples, and develop CODIS eligible profiles from samples, where previously no interpretation could be made (Figure 2).

STRENGTHENING AND STREAMLINING PROCESSES

FBU also implemented STaCS, a laboratory information management system, which streamlines case documentation and tracks quality control of reagents and instrumentations. This eliminates paper tracking of the information and allows FBU to determine, at-a-glance, if supplies are running low or when required instrument maintenance is due.

FBU has revised over 60 SOPs to ensure consistency between procedures and incorporates the new technologies that were validated and brought on-line in 2016. Additionally, FBU has implemented Plexor HY, a quantitation system that allows FBU to determine the total amount of DNA present in a sample, as well as determine if male DNA is present. This testing is useful in screening of sexual assault kits and replaces the more time-consuming and less sensitive traditional serology testing.

The streamlining of processes and the addition of new technology has enabled the FBU to increase production while decreasing backlogged requests (Figure 1). Additionally, supplemental funds enabled the FBU to outsource requests so they could focus on implementing these new technologies and procedures, improving the quality of the work and ensuring customers received timely case results.





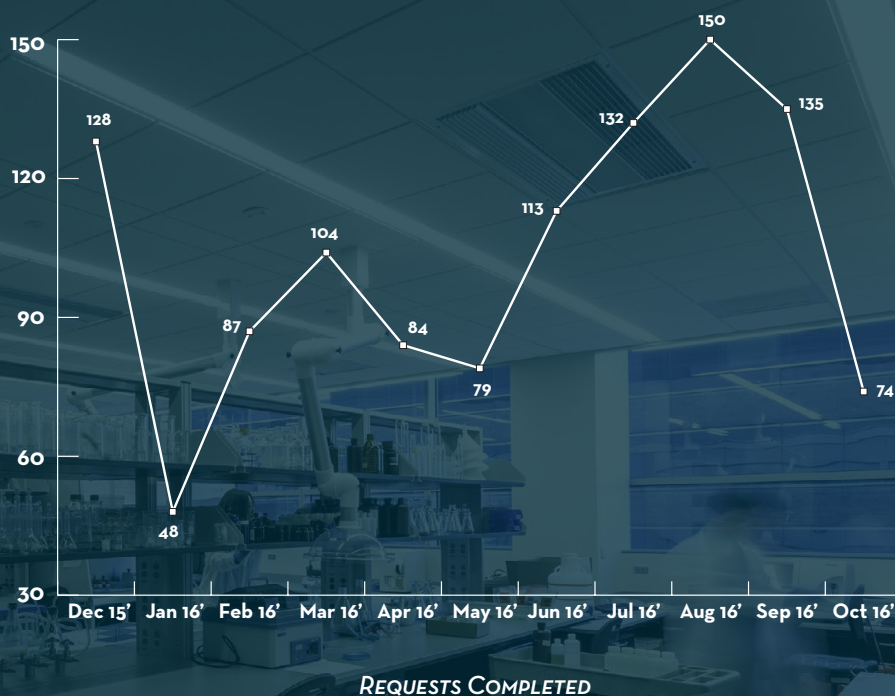
FBU PRODUCTIVITY

REQUESTS COMPLETED
vs.
REQUEST BACKLOG



REQUESTS COMPLETED: DEC. 2015 – OCT. 2016

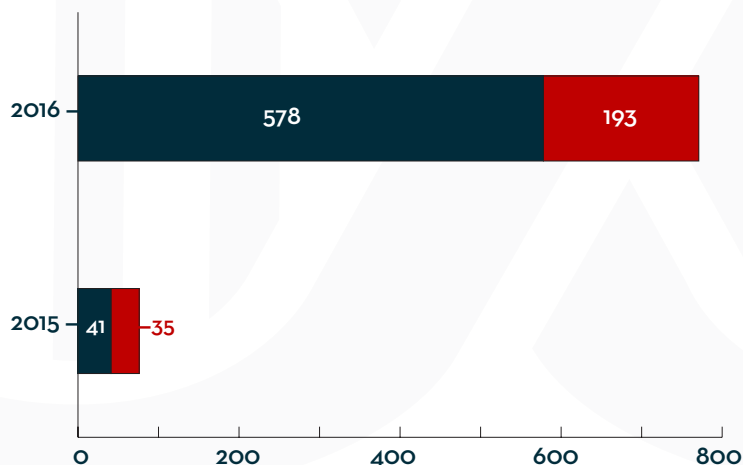
■ Staff = 19% ■ Contractors = 81%



FBU – COMBINED DNA INDEX SYSTEM (CODIS)

JANUARY – DECEMBER

■ Entries ■ Hits



PHYSICAL EVIDENCE RECOVERY KITS (PERK)

- Number of sexual assault forensic examination kits received from MPD: **362**
- The number of sexual assault forensic examination kits processed by DFS: **385**
- The time it took for each kit to be processed (average TAT): **Average 75 days**



FBU IN ACTION

- On August 27, 2015, a man was attacked and robbed at a gas station in Northeast DC after filling his vehicle. The suspect left behind a skull cap at the scene, which was submitted to the

FBU for DNA testing on October 3, 2015. The DNA profile obtained from the skull cap was submitted into the Combined DNA Index System (CODIS) and searched in the National DNA Database. On April 7, 2016, there was a match made to a federal convicted offender, Onrii Oluseun Ogunkile. Prior to the CODIS hit the police had no other lead. Since then, the case has been closed with the arrest of Onrii Oluseun Ogunkile by the Metropolitan Police Department.

- On May 29, 2015 a 76-year-old couple was robbed in Northeast DC. The wife used her husband's cane to defend herself and her husband. The Department of Forensic Sciences collected swabs of the cane, as well as reference samples from the victims and submitted the samples for DNA testing. A DNA mixture profile was obtained, from the swabbing of the body and the rubber end of the cane, and was subsequently searched in CODIS. On May 31, 2016, a match was made to a federally convicted offender. The defense counsel later issued a motion in opposition of an order requiring the defendant to submit an additional buccal swab. The defense counsel also wanted a post suppression hearing of the CODIS search since they felt the initial search "lacked an accepted scientific basis."

With this request from the defense counsel, the case was in jeopardy of being dismissed if these critical evidentiary elements were suppressed. Because of this, the DFS CODIS Administrator for the District of Columbia prepared an affidavit and took the stand for a four-hour long testimony in D.C. Superior Court. In this testimony, the State CODIS Administrator explained the CODIS process and their findings. After this testimony, the judge issued a 16 page memorandum opinion on the case ruling the CODIS search was in fact conducted in accordance with standard practice and policy. The ruling largely credited the DFS CODIS Administrator's testimony and the CODIS match was allowed into evidence and a new buccal swab was ordered for a comparison to the crime scene evidence.

Strengthening Relations with FSL Stakeholders

The following lectures and trainings were provided throughout 2016 to build a stronger relationship with all stakeholders. The aim was to communicate FSL capabilities and address any issues in an engaging environment. It is the goal for many of these activities to continue in the future, to ensure open communication is maintained, and customer relationships are reinforced.

FORENSIC SCIENCE LABORATORY

Lectures/Trainings

12/1/2016

Stakeholder Presentation given by
FSL Director, Karen Wiggins

4/11/2016

PDS Roundtable

4/27/2016

MPD Basic

Investigator Training

(300 Detectives and Fire Investigators)

**Trainings throughout
April, May, and June 2016**

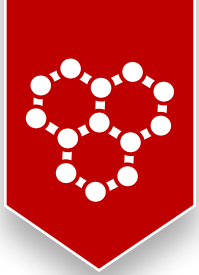
MPD Lecture Series

11/8/2016

MPD Homicide School

**Various trainings
throughout the year**

OAG, PDS, USAO Informational Training



Below is a complete list of all recurring meetings, trainings and lectures FSL has participated in and the specific units that are represented:

	FBU	FEU	FIU	LFU
Inter-Agency Meeting (Bi-Weekly)	●	●	●	●
Operations Meeting (Weekly)	●		●	●
FSL/CSS Joint Meeting (Weekly)	●	●	●	●
MPD Conference Call (Weekly)		●	●	
MPD TOPS (Quarterly)		●	●	●
MPD Basic Investigator Training (300 Det. + Fire Inv.)	●	●	●	●
MPD Homicide School	●	●	●	●
Gunstat and IRAC with CJCC (Monthly)		●	●	
USAO DNA Meeting (Weekly)	●		●	
PDS Roundtable	●	●	●	●
Sexual Assault Response Team – SART (Monthly)	●			
American, Howard & Georgetown University	●	●		●
OAG, PDS, OAG Informational Training			●	●
MPD CODIS Meeting	●			



UPCOMING FOR FSL IN 2017

FORENSIC BIOLOGY UNIT (FBU)

- Evaluate the use of commercially available Next Generation Sequencing (NGS) platforms to analyze forensic DNA samples and assess the ability of NGS to produce reliable, accurate and usable results on forensic evidence. The NGS evaluation process, conducted by the FBU along with other leading laboratories, will provide data as to whether or not this technology will improve forensic DNA intelligence on criminal cases.

FIREARMS EXAMINATION UNIT (FEU)

- Mideo, a case management system, will interface with the current agencies laboratory information management system (LIMS) to streamline evidence examination workflows and allow for firearms accreditation related reviews.
- Application of GunOps, a firearms tracking system, will continue to be utilized by collecting information found on submitted firearms evidence.

LATENT FINGERPRINT UNIT (LFU)

- LFU will review the capabilities of the Mideo image management system, to determine how it can be integrated into the LFU's workflows. This system will enhance image management and image processing capabilities, to ensure better tracking of latent evidence and document information concerning any processing that has been done to latent images during analysis and comparison. This documentation will enhance the quality of the work LFU produces and technically advance the way cases are worked.

FORENSIC INTELLIGENCE UNIT (FIU)

- The Forensic Intelligence Unit is being established in 2017. Members will be responsible for reviewing customer requests, streamlining requests for services and determining the impact of intelligence information produced by each case-working unit.
- This unit will work with FEU to utilize information collected from GunOps to generate actionable intelligence to assist DFS customers with solving crimes.



Training and Quality

ANAB, DSAT and CLIA

In FY16, the Public Health Laboratory (PHL) and Forensic Science Laboratory (FSL) of the Department of Forensic Sciences (DFS) underwent both internal and external inspections to ensure conformance to regulations. The FSL is accredited under ISO/IEC 17025:2005 international accreditation standards by ANSI- ASQ National Accreditation Board (ANAB) while the PHL is certified under both Clinical Laboratory Improvement Amendments (CLIA) by Centers for Medicare and Medicaid Services (CMS) and the Division of Select Agents and Toxins (DSAT) by Centers for Disease Control and Prevention (CDC).

FSL

The FSL experienced an external surveillance assessment from ANAB from September 26-28, 2015. One (1) Quality-Corrective Action Report (Q-CAR) was issued. The corrective action was accepted and the FSL management system was found to be in compliance with ISO/IEC 17025:2005 requirements. The final letter of acceptance and conformity was dated October 27, 2015. From November 30-December 1, 2015, an external audit was conducted using the Federal Bureau of Investigation (FBI) Quality Assurance Standards (QAS) for the Forensic Biology Unit (FBU). Three (3) Q-CARs were issued as a result of the findings. The corrective actions were accepted and the FBU was found to be in compliance with the external audit requirements and the FBI Director's Quality Assurance Standards. The final completion letter was dated April 21, 2016.

The FSL underwent an internal audit from May 31st to July 4, 2016 to determine any areas of deficiency within the quality system. The Quality Team conducted an internal audit in accordance with ISO 17025 accreditation standards and internal agency requirements. Three (3) Q-CARS and five (5) non-conformities were documented to monitor increased frequency or impact.

From August 22-23, 2016, the FSL underwent another ANAB Surveillance Assessment. Four (4) Q-CARs were

issued. The corrective action was accepted and the FSL was found to be in compliance with the accreditation requirements of ISO/IEC 17025: 2005. The final letter was dated September 24, 2016.

At the same time (August 22-23, 2016) the FBU completed another FBI QAS Audit. No Q-CARs were issued. The FBU was found to be in compliance with the external audit requirement and the FBI Director's Quality Assurance Standards. The final completion letter was dated November 3, 2016.

PHL

In FY 16, the PHL completed internal and external inspections. From March 1-3, 2016, DSAT conducted an unannounced surprise on-site inspection of the PHL Bio-Safety Level 3 (BSL-3) laboratory which resulted in thirteen (13) Q-CARS.

An internal audit of the PHL was conducted in April 2016. The Quality Team conducted an internal audit in accordance with CLIA of 1998 regulations; PHSBPRA of 2002 regulatory requirements; and internal agency requirements. The audit resulted in forty-two (42) QCARS. The overarching non-conformity identified was lack of documentation.

On September 27-28, 2016, CLIA conducted an on-site surveillance inspection of the PHL which resulted in ten (10) Q-CARS. After resolution of the deficiencies, CMS issued a Certificate of Compliance effective November 10, 2016. The laboratory's certificate of compliance is valid until November 9, 2018.

From September 28-29, DSAT conducted an on-site inspection of the PHL Bio Safety Level (BSL-3) laboratory for recertification which resulted in eleven (11) Q-CARS. The resolution of those corrective actions has allowed the lab to be recertified by DSAT for another 3-year-period. The new registration expires December 26, 2019.

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