

WHAT'S NEWS @ HFSC

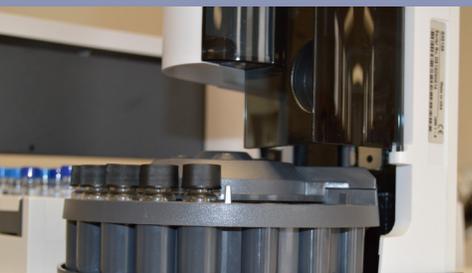
HOUSTON FORENSIC SCIENCE CENTER • JUNE 2018

HFSC's Client Services/Case Management Division Achieves Accreditation

INSIDE THIS EDITION



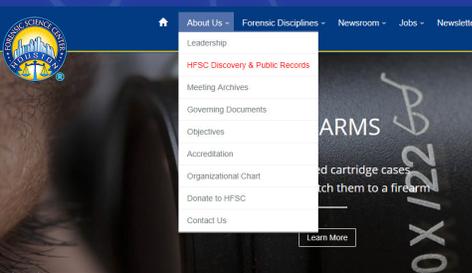
4 Vehicles are crime scenes: the right answer at the right time



6 HFSC's toxicology section brings drug testing in house



8 HFSC's latent print backlog should be eliminated by year's end



10 A new, user-friendly version of eDiscovery will rollout July 9



The International Association of Property & Evidence (IAPE) has awarded accreditation to the HFSC section responsible for evidence

handling.

The accreditation of HFSC's Client Services/Case Management Division (CS/CM) means its requirements for evidence handling and packaging will be more stringent. In the short-term, stakeholders _ who will need to become accustomed to new rules put in place to meet accreditation requirements _ could see more evidence rejected for forensic testing.

HFSC has been sharing this information with the Houston Police Department and other stakeholders to increase the understanding and awareness of the impact this change will have on the requirements surrounding evidence handling.

CS/CM receives evidence submissions, distributes cases and evidence for analysis to the forensic disciplines and returns items to the submitting agency once testing has been completed. Proper handling and packaging of that evidence is crucial to ensure HFSC's subsequent forensic analysis is of the highest quality. HFSC considers this, and all its accreditations, as minimum standards, but believes it is important to have official recognition to ensure stakeholders know rules and regulations are in place for all aspects of the work

done.

"I think that having a division whose responsibility is to transport the evidence to and from the laboratory and holding that division accountable for the validity and integrity of the evidence is paramount to the reputation and success of the lab," said Ashley Henry, CS/CM's manager. "Establishing policies and procedures and having a standard that holds you accountable for that ensures the trust of the public and of stakeholders."

To achieve accreditation CS/CM had to provide IAPE with SOPs and other documentation that showed it properly handles and manages evidence. Following an on-site assessment, the group had to make additional changes to its policies and procedures, and have staff trained on gun safety. After all the changes had been made and IAPE had been provided with that documentation, it awarded the group the accreditation.

The Crime Scene Unit will also soon be accredited and that will further impact evidence collection and handling, said Dr. Peter Stout, HFSC's CEO and president.

HFSC believes accreditation requirements are merely minimum standards and strives to do even better across all the work it completes, Dr. Stout added.

"We are always looking to improve the scientific aspects of our work and that begins with proper evidence handling," Dr. Stout said. "Third-party oversight over our evidence handling improves our work product."



A Few Words From Our PRESIDENT

HOUSTON FORENSIC SCIENCE CENTER

Peter Stout, PH.D.
CEO/President

Each week, HFSC receives on average 80 sexual assault _ or rape _ kits as evidence, a stark reminder of the heinous acts committed in our society each day. Behind each of those kits is a person, and because of that we take bold moves to improve our processes and our evidence handling to ensure each individual associated with that evidence sees justice.

We owe this to our community.

But as I look at those kits arrive and see the news each day, I am reminded that what happens on our city streets can also _ and unfortunately, often does _ occur in the workplace.

Although the #MeToo movement that has engulfed our country in the past year has brought this issue to the forefront, it is also a fact that I, and most everyone else, has known for years: sexual harassment _ and yes, sexual assault _ are all too common. These are crimes of power, and the victims are often women. They are our mothers, daughters, sisters, cousins and, not least important, our co-workers. Men, too, can and often are the victims of sex crimes, and this too we must recognize and face.

So, as CEO and president of an agency dedicated to bringing justice to these victims, I cannot ignore that I must also make our workplace a safe haven for the people who contend each day with society's worst scenarios. I must ensure they are aware not only of the laws, but also that they have a safe place here at HFSC to lodge complaints when necessary and be assured that they will be handled appropriately.

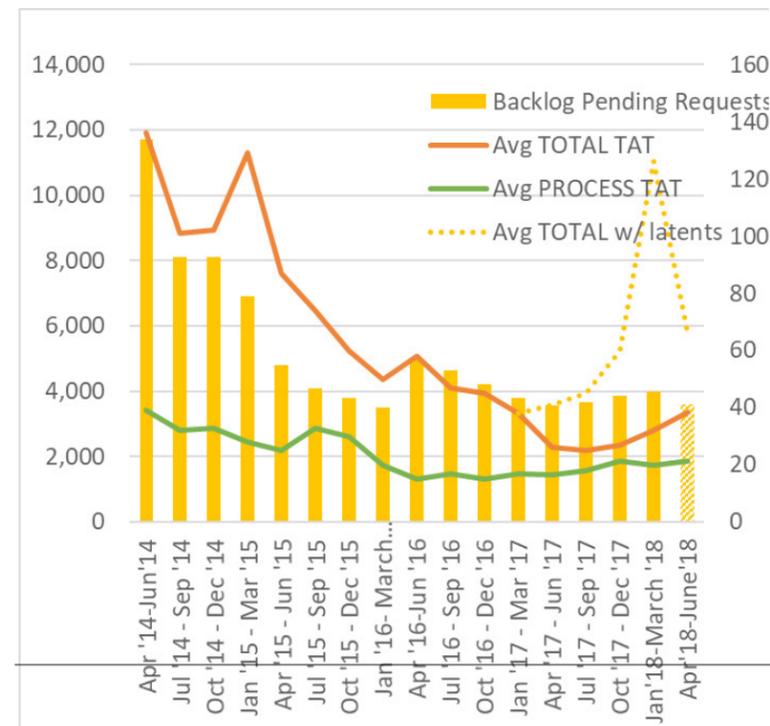
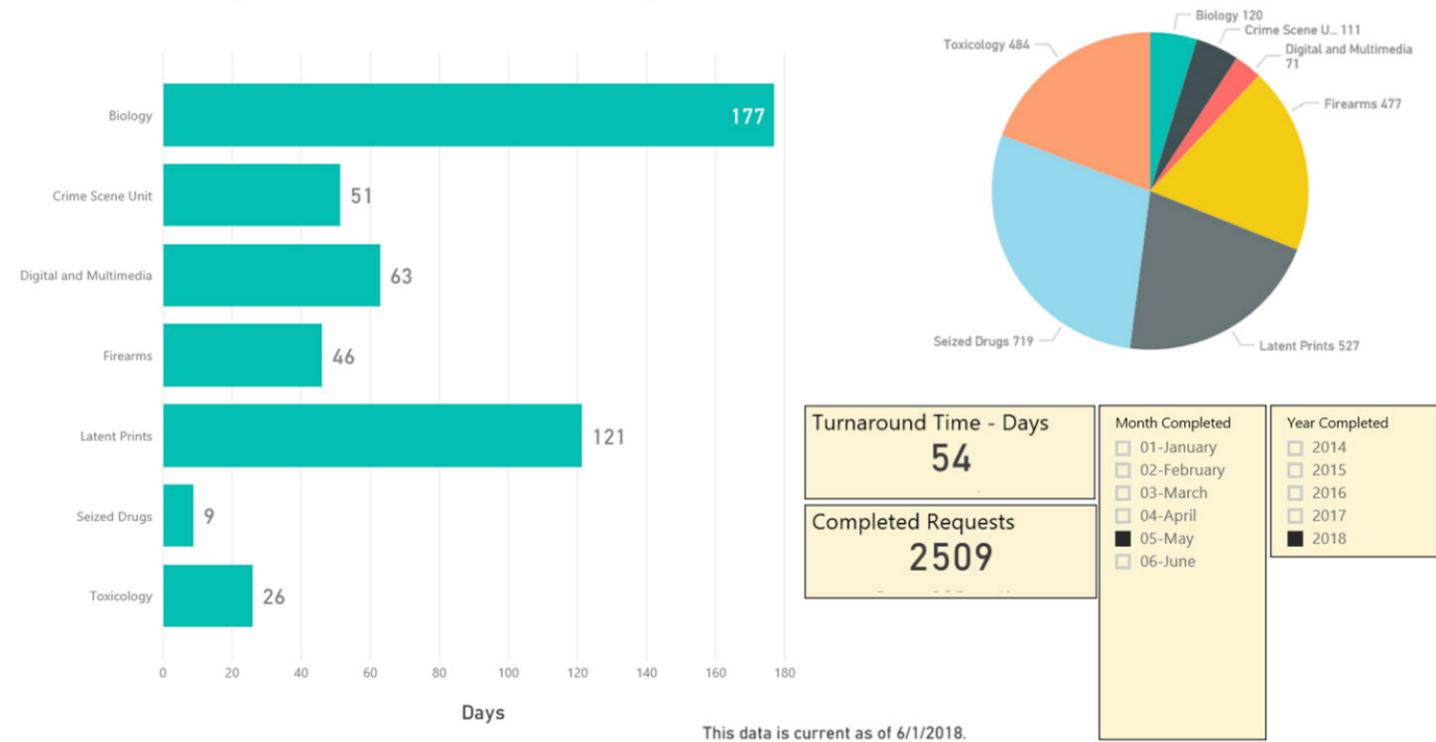
Sexual harassment training will help raise awareness, but beyond that I am committed to creating a culture of respect that makes HFSC a model workplace.


Peter Stout, PH.D.
CEO/President

Dr. Peter Stout, HFSC's CEO and president, initially joined the agency in 2015 as its chief operating officer and vice president. He has more than 15 years of experience in forensic science and forensic toxicology. Prior to joining HFSC, Dr. Stout worked as a senior research forensic scientist and director of operations in the Center for Forensic Sciences at RTI International. Dr. Stout also has served as president of the Society of Forensic Toxicologists (SOFT). He represented SOFT in the Consortium of Forensic Science Organizations and has participated in national policy debates on the future of forensic sciences in the United States. Dr. Stout has a doctorate in toxicology from the University of Colorado Health Sciences Center in Denver. Dr. Stout also served as an officer in the U.S. Navy Medical Service Corps.

HFSC At A Glance

Average Turnaround Time for May 2018



The Houston Forensic Science Center's ultimate goal is to achieve across all sections an average turnaround time of 30 days from the moment of request to the issuance of a report.

We are not there yet, as the numbers show.

But we are getting close. At the moment, two sections have backlogs: latent prints and forensic biology/DNA.

However, both also have plans in place to eliminate those backlogs, and the latent print backlog should be gone by year's end.

And overall, with an average turnaround time of 54 days across sections despite old cases lingering in latent prints and DNA, HFSC is getting closer.

For more information, please visit www.houstonforensicscience.org

CSU: RIGHT ANSWER, AT THE RIGHT TIME

IT MAY SEEM LIKE THE OLD, CRUMBLING, METAL BUILDING ON DART STREET _ THE VEHICLE EXAMINATION BAY (VEB) IS USELESS. BUT IT'S FULL OF CLUES
BY CSI KAITLIN MAIN

On a December night last year, a man left his house and never returned. Instead, he was found murdered, his body strewn by a dumpster.

HFSC's Crime Scene Unit responded to the scene but found little evidence that could help solve the crime.

A month later, though, a breakthrough. The victim's car was brought to the Vehicle Examination Bay (VEB) on Dart Street, and the story changed.

The simple, white metal building on Dart Street near downtown with large vehicle bays stuffed with wrecked vehicles may appear to be

the least likely place to find pertinent evidence.

The VEB, however, is so much more than well-stocked supplies and clean workspaces.



Often the vehicles towed to the VEB are vital crime scenes and comparable in importance to the scenes CSU responds to in the field.

And so, when Crime Scene Investigator Natalie Azzarello began processing the murder victim's vehicle in January 2018 she knew she might find a clue that would help solve what until that point had remained an unresolved murder with no evidence to

point investigators in the right direction.

She processed the car for latent prints and contact DNA. It was when Natalie used her training in the application

and photography of blood visualization agents _ such as Blue Star and Leuco

Crystal Violet _ that she found visible blood available for DNA testing in the vehicle's interior.

Once again, the car is a crime scene yielding crucial evidence and clues.

And the training and competency testing Natalie and the other CSIs underwent proved again to be useful.

The BlueStar reaction identified multiple areas of non-visible blood,



providing additional DNA samples for analysis. And as she continued to process the vehicle, Natalie discovered numerous items of evidentiary value.

A month later when the report was issued, it was the evidence recovered from the vehicle that provided HPD investigators with valuable substantiating evidence to identify suspects and information regarding the circumstances that led up to the homicide.

The scene may not have been forthcoming, but the vehicle proved to be critical.

Often, the vehicles processed at the VEB tell their own story, providing evidence, information and clues to investigators.

Ensuring the VEB is well-supplied and is in good working condition allows HFSC's Crime Scene Unit to provide stakeholders with the right answer, at the right time, in the right place.



DRUGS HFSC BRINGS DRUG TESTING IN-HOUSE

HFSC's toxicology section has revalidated methods to improve testing

The Houston Forensic Science Center announced earlier in June that its toxicology section had completed a three-year process to revalidate methods so it could reliably and accurately do in-house drug confirmations.

This move allows HFSC to stop nearly all drug confirmation work being done by an external, private laboratory, bringing not only analysis in-house but also the crucial testimony that follows when a case goes to trial.

"The experience of conducting validation experiments and casework according to higher standards will further establish the section in terms of detailed documentation, reliable verification and rigorous data analysis and review processes," said Dr. Dayong Lee, manager of the toxicology section.

The group's journey began three years ago when the section stopped using GC-MS, or gas chromatography-mass spectrometry, for drug confirmation casework.

The reason was to allow the section to develop and validate improved confirmatory test methods that reflect the more rigorous criteria set forth by the Scientific Working Group for Forensic Toxicology (SWGTOX.) This group has created recommendations of minimum standards of practice for validating analytical methods within forensic toxicology.

The revalidation efforts were spearheaded in June 2015 by Dr. Peter Stout, HFSC's CEO and president, who worked with another toxicologist from NMS labs. Dr. Lee joined HFSC later

that summer and in August 2015 halted all drug confirmatory testing to allow the group to focus solely on rebuilding the section's methods.

The team also reviewed alcohol analysis and immunoassay drug screening. They worked closely with the quality division, whose role was to review the validation and uncertainty of measurement packages.

The uncertainty of measurement is an estimate of the variability of a measurement.

Now that all the methods have been validated and the analysts have successfully completed proficiency exams, the section is ready to take on the drug work.

So what does this mean for the section as it implements a three-year-long initiative?

For starters, many of the instruments in the toxicology section are outdated and require extensive maintenance. This means the new drug testing will cause an increase in overall turnaround time.

Another obstacle with the instruments is that they are so old the section is limited in the types of drugs it can test and some samples will still have to be outsourced for confirmation.

Yet Dr. Lee says although the three-year process may seem daunting, the pros far outweigh the cons.

Having analysts do in-house confirmation tests allows them to more efficiently complete casework and prepare to work with newer technology, such as the LC-MC/MS instrument HFSC is planning to purchase.



HFSC's toxicology section uses a variety of high-tech instruments and robots to do drug testing

The Houston Forensic Science Center brought drug testing in blood and urine in house on June 11. This followed a three-year process to more rigorous criteria set forth by the Scientific Working Group for Forensic Toxicology (SWGTOX). This group recommends minimum standards for analytical methods in forensic toxicology. Since the instruments being used by the toxicology section are outdated, there will be an increase in the overall turnaround time. In addition, HFSC is limited in what types of drugs it can test using the GC-MS instruments so some work will still need to be sent to a private laboratory.

HFSC GETS REAC- CREDITED THIS JULY

Six of the Houston Forensic Science Center's seven disciplines will have their first four-year reassessment by ANAB this July as HFSC seeks to be reaccredited to the ISO/IEC 17025 standard.

During that reassessment, HFSC's Crime Scene Unit will have its first-ever assessment so it too can be accredited to the same standard.

CSU will be the last HFSC discipline to achieve accreditation.

HFSC's accreditation, which extends to the lab's forensic biology, digital/multimedia evidence, firearms, latent prints, seized drugs and toxicology sections, expires on Sept. 11, 2018.

Texas law requires accreditation in specific disciplines, including forensic biology, firearms, seized drugs and toxicology.

HFSC views accreditation as a minimum standard all its disciplines must meet.

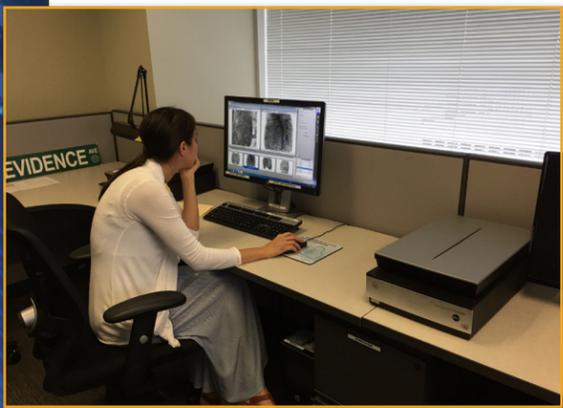
Accreditation is also of paramount importance for employee testimony. Texas law dictates that laboratories must be accredited for the admission of evidence or testimony in a criminal proceeding.

During the assessment, ANAB reviews the lab's technical qualifications and competence for conducting tests and inspections within the scope of ISO/IEC 17025.

Accreditation ensures lab non-conformances or errors are promptly identified and addressed.

"Being accredited to an international standard gives our stakeholders confidence in the quality of our work product," said Lori Wilson, HFSC's quality division director.

LATENT PRINTS BATTLES BACKLOG



A latent print examiner views images of fingerprints



A latent print examiner compares a fingerprint to an on-screen image



Latent print examiners complete casework

The saga of the latent print backlog began in April 2016 when a media inquiry led to the discovery of more than 2,400 fingerprint cases in the Houston Police Department Property Room.

The cases sat. Untouched. Unknown to the Houston Forensic Science Center. No one had requested a latent print examination.

The number was staggering — a year's worth of work.

And so began a two-year journey to eliminate a backlog and build a section that had the proper resources and processes to deal not only with the cases found in the property room, but also any future caseload.

Now, two years later, the backlog numbers in latent prints are dropping quickly and the section has a workflow in place that will allow for a sustainable turnaround time of 30 days or less on average once the old cases are completed.

The backlog dropped from 1,920 backlogged cases at the start of May to 1,502 at the end of that month. The section completed 481 cases in May, and manager Tim Schmahl projects the backlog will be eliminated by year's end.

"It took creativity, hiring and hard work to reach a point where the section could truly put a dent in the

backlog," Tim said.

"But I'm confident that what we have in place now is not a short-term fix designed to eliminate a backlog, but rather a process that will allow us to operate effectively and efficiently going forward."

The first step began in February 2017 with a move to hire six additional examiners and the decision, four months later, to purchase equipment that would allow the section to more quickly search regional databases. By December five of the new examiners had been authorized to perform independent casework.

As the examiners worked through the cases, though, a bottleneck occurred at the supervisor level in the technical and administrative review step. So Tim moved to create three smaller teams, rather than two larger ones, and added a supervisor, alleviating the bottleneck.

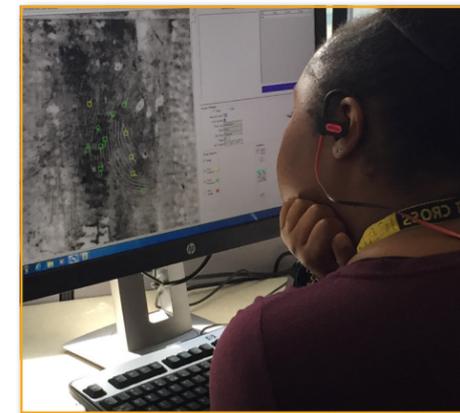
Since March, with a combination of more examiners, better technology, streamlined workflows in a new Laboratory Information Management System and smaller, more efficient teams, the section has consistently completed more than 400 cases each month.

In addition, the section has implemented a unique workflow that is getting national attention as other latent print units adopt the idea.

Previously, latent print examiners would compare all fingerprints in a case, including to whatever hits came back from the databases, and issue a final report to the investigator.

Depending on the size of the case and the number of prints associated with it, the investigator could take weeks — and often even months — to get the results.

Tim understood, however, that often — especially in crimes committed in a house or associated with a vehicle — many of the prints, if not all of them, would trace back to the property owner or someone who had legitimate access to the area. Examiners sitting to compare



"WE DID NOT HAVE THE RIGHT SET UP ... NOW WE CAN TAKE IT ALL ON," LATENT PRINT MANAGER, TIM SCHMAHL

fingerprints that ultimately would be of no use to the investigation was a waste of tight resources.

So Tim implemented a new workflow. Now, examiners will upload fingerprints to the database and do a preliminary, on-screen comparison. If there is a preliminary "match," the information is provided to the requesting investigator along with the list of names. If the investigator comes across information that they believe could help in the investigation, they then request a full comparison and identification that can be used to file charges.

More than a year after that workflow was implemented, it is clear that much of the work the latent print examiners had been doing up to that point may have been unnecessary. Investigators are only requesting full comparisons and identifications about 15 percent of the time.

So between the new workflow, the higher-tech equipment and more staff, HFSC's latent print section is now ready to not only eliminate a backlog but also prevent a future buildup.

"I realized quickly when the backlog was discovered in the property room we did not have the right setup to deal with this or a future caseload," Tim said.

"Now we can take it all on."

EDISCOVERY

HFSC LAUNCHES NEW VERSION JULY 9

The Houston Forensic Science Center is rolling out on July 9 a new, user-friendly version of its eDiscovery website, making it easier for the public to search and locate thousands of documents.



The eDiscovery website, initially launched in 2016, has long been a warehouse for HFSC standard operating procedures, validation and quality reports and other documents that are not case specific. The new website will have these and other documents available, but also be easier to search. The public can access eDiscovery via a link on HFSC's website and search for records. HFSC has made the documents directly accessible to the public to streamline responsiveness to requests _ such as discovery orders and subpoena requests _ and to further fulfill a commitment to transparency.

The eDiscovery website also houses quality division documents,

including corrective actions.

"HFSC is committed to being transparent and views eDiscovery as one of the key tools to accomplish that goal," said Dr. Peter Stout, HFSC's CEO and president.

"We have worked long and hard to perfect the website to ensure it not only has the right documents posted, but that they are also easy to find. As we further refine the website, it will continuously have more documents available and be more user-friendly."

eDiscovery is accessible from two locations on the home page of HFSC's website, www.houstonforensicscience.org, under the "About Us" dropdown menu at the top of the page and at the footer at the bottom. The link to access eDiscovery is titled "HFSC Discovery & Public Records."

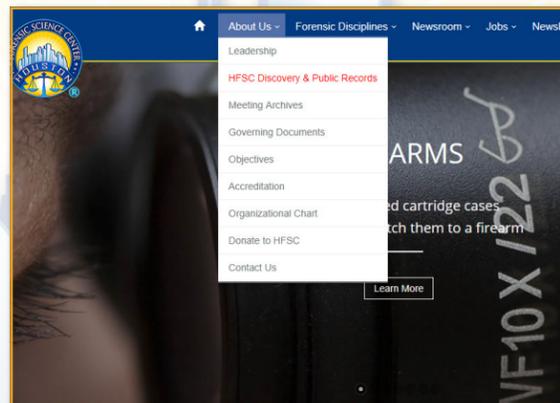
HFSC's toxicology section, which analyzes blood and urine for the presence of drugs and alcohol,

has used the eDiscovery website most extensively, and been key to its further development.

"In the past, we had analysts spending hours pulling together documents responsive to discovery and subpoena requests," said Dr. Dayong Lee. "Now, nearly all the responsive documents are online. Attorneys can access what they need independently, or with the help of a few links, and analysts can focus on completing casework in a timely manner. This, we believe, is how the system should work."

As the new site comes online, HFSC welcomes feedback to further improve eDiscovery. Please send feedback to info@houstonforensicscience.org.

HFSC's eDiscovery is accessible from the homepage of the website



What's Up WITH LIMS

The Houston Forensic Science Center has paused bringing more disciplines into the new Laboratory Information Management System (LIMS) it is building due to a software bug it has encountered.

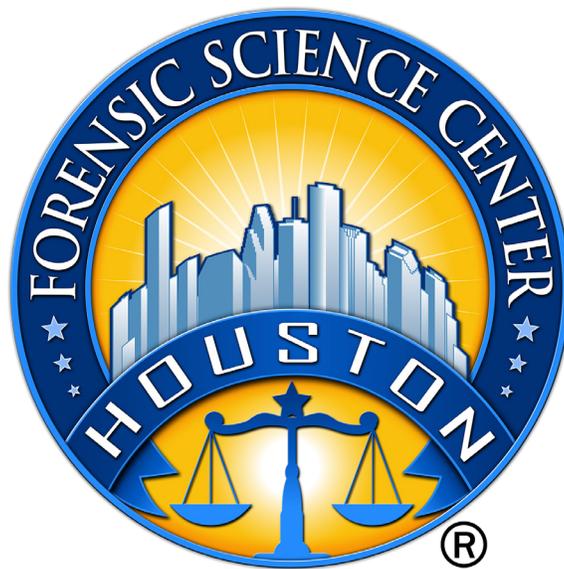
HFSC is working with the vendor, JusticeTrax, to patch the bug, and plans to bring additional sections into the system once the testing shows the issues have been resolved.

The LIMS project has been ongoing for the past year, and three disciplines are already operating in the new environment. The goal behind this project is to provide HFSC with a database that better suits its internal and external needs.

HFSC is also building a custom portal for stakeholders to request analysis. The portal will make that experience easier and more user-friendly.

Although the buildout of the entire system _ from database to portal _ is taking longer than anticipated, HFSC is confident the final product will better serve analysts and staff as well as external stakeholders.





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