

Description of the Issue

Overview: The City of Tulsa (population 413,066) is the county seat of Tulsa County which is comprised of 11 law enforcement agencies sans school and campus police.¹ The Tulsa Police Department (TPD) is the largest agency charged with protecting 60% of the Tulsa County population (695,924) and responding to 74% of the total crime index (56,335). The City of Tulsa has a crime rate of 102.72 per 1,000 residents, with a violent crime rate of .028 per 1,000, making it the highest rate in large cities in Oklahoma.²

The number of nonfatal shootings over the last two years is 2,172 for the city. Of the 136 homicides over the last two years, 32 of them have been from illegally possessed firearms. Since 2019, the city of Tulsa has seen an increase in assaults with firearm and a decrease in homicides and robberies, and there is a slight lowering trend of assaults with firearm since 2020.³ A reason for this trend is the CGIC implementation that occurred in 2019. Additional indicators of violent gun crime are 911 calls involving possible gun fire. Calls categorized as shooting, shots discharged, shots fired, and shots heard were examined. Between 2021 and 2023, in all categories, the TPD has seen a dramatic increase, as identified below.

Table 1: Violent Crime in Tulsa and Calls for Service

Violent Crime in Tulsa	2019	2020	2021	2022	2023	Percent Change 2022-2023	Percent Change Since 2019	Calls for Service		2021	2022	2023	Percent Change 2021-2023
Assault/Firearm	970	1267	1227	1123	1049	-7%	8%	Shooting		181	268	232	28.18%
Homicide/Murder	65	88	71	78	58	-26%	-11%	Shots Discharged		184	269	275	49.46%
								Shots Fired		365	615	602	64.93%
Totals	1777	2118	1886	1731	1540	-11%	-13%	Shots Heard		1640	2964	2887	76.04%
								Totals		2370	4116	3996	68.61%

In 2020, the Supreme Court ruling on *McGirt v. Oklahoma* established that local and

¹ U.S. Census Bureau, “Explore Census Data.”
² Oklahoma State Bureau of Investigation, “Crime in Oklahoma 2021 Report.”
³ Tulsa Police Department, “Annual Report 2023.”

state law enforcement do not have prosecutorial authority over American Indians on tribal land.⁴ With 14% of Tulsans having tribal affiliation, the TPD had to cross deputize with Cherokee Marshals and Creek Lighthorsemen. Many investigators and detectives received TFO status from federal partners to investigate and arrest crimes impacted by this ruling.

CGIC Implementation and Successes: In 2018, the TPD applied for and received the CGIC 2018 BJA Grant to implement a CGIC in the City of Tulsa. That same year, the TPD formed the Crime Gun Unit (CGU) under the Special Investigations Division (SID) to focus on reducing firearm related crimes. Currently, the SID houses CGU (1 Lieutenant, 2 Sergeants, and 7 Investigators) partnered with 5 ATF agents and 3 ATF analysts/contractors. The SID hosts a CGIC monthly meeting where local, state, tribal, and federal law enforcement, Tulsa County District Attorney’s office, US Attorney’s Office, Oklahoma DOC, and Probation and Parole cover new National Integrated Ballistic Information Network (NIBIN) leads and synchronize efforts to ensure prosecutions. The TPD Forensics Lab bolsters the CGIC process through timely and comprehensive analysis of all firearm evidence. The below data represents the dramatic increase in analyzing collected evidence to generate NIBIN Leads.

Table 2: Successes since Tulsa’ CGIC Implementation in 2019.

Since CGIC Implementation in 2019	2019	2020	2021	2022	2023	Percent Change Since 2019
Number of Acquisitions	644	1658	2411	2566	2543	294.88%
Recovered Firearms Test Fired	239	1115	1636	1838	1799	652.72%
Casings Inputted into NIBIN	405	543	765	728	734	81.23%
Casings Inputted into NIBIN (1 Day Entry)	361	418	656	602	589	63.16%
Number of NIBIN Leads	130	153	322	284	343	163.85%
Firearms Submitted to eTrace	1403	1653	2049	1887	1619	15.40%
Arrests Based on Intel from NIBIN Lead	*	*	*	*	*	*
Convictions Based on NIBIN Lead	*	*	*	*	*	*
* The TPD has not tracked this information. In 2024, an analyst was hired to start tracking this data.						

⁴ Supreme Court of the US, 2020.

Success Story: One of the TPD's earliest success stories showed the positive impact NIBIN can have on the community to increase public safety and bring violent offenders to justice. On October 14, 2018, the Tulsa Fire Department responded to a house fire at 606 East Seminole Place, Tulsa, Oklahoma. Firefighters located three deceased victims inside the residence with gunshot wounds. TPD personnel responded, processed the crime scene, and located one .40 caliber cartridge casing. TPD Homicide Investigators arrested Keenan Burkhalter for the crime, and he was charged in Tulsa County.

On October 11, 2020, TPD Officers responded to a domestic disturbance and learned a gun was fired during the disturbance. Officers located four .40 caliber cartridge cases at the scene. The cartridge cases were collected, and NIBIN matched the cartridge case from the triple homicide in 2018. The TPD Crime Gun Unit followed up on the NIBIN lead and located the crime gun. The possessor was arrested, interviewed, and cooperated with the case. Locating the crime gun provided new physical evidence and assisted prosecutors in the criminal cases against Burkhalter and Conard. On June 01, 2022, Keenan Burkhalter was convicted on three counts of Murder in the First Degree and Arson in the First Degree and sentenced to Life Without Parole.

Resources to Improve and Expand CGIC: The TPD's CGIC shows an effective implementation of the first 3 of 5 things for CGIC. We established a policy for comprehensive collection of ballistic evidence, utilize NIBIN and eTrace in a timely manner, and formed a dedicated investigative team that coordinates efforts. These efforts show a 163% increase in NIBIN generated leads. The TPD CGIC needs to exploit these leads by expanding the use of forensic technology specifically, enhanced digital evidence, to bolster investigations and improve our partnerships by tracking arrests and prosecutions.⁵

⁵ Police Foundation, "5 Things You Need to Know About Crime Gun Intelligence Centers."

Utilizing technology is a cornerstone of the success of many Crime Gun Intelligence Centers. As stated by Consumer Reports, almost all Americans (97%) own a mobile phone.⁶ These devices often hold information critical to solving firearm related crimes. The need for technology to assist with processing digital evidence is increasing as the number of devices involved and the capacity of those devices continues to increase. WIREs Forensic Science recently released a publication revealing that digital evidence is now a feature in 90% of criminal cases.⁷ More data is available for investigations than ever before, requiring additional expertise and resources for effective collection, analysis, and interpretation.⁸ Having more efficient access to the information held on digital devices allows investigators to make linkages between firearm related crimes, devices, people, places, events, times, locations etc. As technology evolves, devices become more sophisticated with respect to security- longer passcodes, locks, encryption, and software.

As the vast majority of crimes involve at least one digital evidence component/device, the attainment of critical technology is essential to the success of our CGIC as funding will be used to enhance abilities to access devices, gather evidence, connect the dots between data sources and ultimately combat these crimes. While the TPD has cellular forensics, our capabilities are limited due to security features and advancements. Below details our success rate in extracting needed information regarding CGU and ATF cases.

Table 3: Total Cellular Downloads and Success Rate for CGU and ATF

CGU and ATF Cellular Requests	2019	2020	2021	2022	2023
Cellular Downloads	5	30	39	36	49
Successful	2	16	28	23	24
Percentage Successful	40%	53%	72%	64%	49%

⁶ Bortin, Jon. "Cell phone statistics, 2023".

⁷ Morris, Sarah. "We're Making a List and We're Checking It Twice, Gonna Find Out What Makes Digital Forensic Examiners Suffice."

⁸ Quinn, S. "The imperative transition to Digital Intelligence in Law Enforcement".

With the implementation of updated Cellebrite technology, partnered with forensics computers, access to these devices will become more effective and efficient, decreasing delays and allowing critical evidence, which may not be otherwise uncovered, to be accessible to investigators and prosecutors to combat violent crime.

Search warrants written on the suspect's social media accounts collect data that can yield evidence of the planning, commission, or aftermath of a crime, which can be used to effect arrests and further prosecutions. This digital evidence must be searched efficiently using processing and analysis software. The results can provide identifying information, location data, private messages and media, and association with other individuals, building evidence of criminal activity and possibly conspiracy.⁹ Currently, the TPD utilizes Penlink as its analysis software; however, the server and system require a complete upgrade and contract renewal to continue its effectiveness.

Deployable license plate reader (LPR) technology enhances investigation effectiveness and reduces crime at hotspots by providing records of vehicles that were near the location of a crime during the specified time. It is widely recognized that many firearm crime victims are recidivist suspects and vice versa. Deploying covert LPRs to hotspots related to NIBIN leads, provides additional evidence for investigators to further cases.¹⁰ Currently, the SID does not have this capability. Additionally, deployable surveillance cameras that are used in targeted investigations have shown a higher clearance rate in those investigations.¹¹ The SID has limited numbers of deployable surveillance cameras, but they have shown positive effects. They have documented activity at the location and provide pre-search warrant surveillance to improve

⁹ Lane, et al. "Guilty by Visible Association."

¹⁰ Koper et al. "A randomized test of initial and residual deterrence from directed patrols and use of license plate readers at crime hot spots."

¹¹ Jung and wheeler. "The effects of public surveillance cameras on crime clearance rates."

officer safety, without exposing an investigator sitting in a vehicle for hours. Pairing deployable LPRs with cameras would generate leads and provide evidence to further investigations and effect arrests.

Project Design and Implementation

Goal: As described above, our CGIC has reduced violent crime and increased NIBIN leads by 163% ; however, the **goal** of this proposal is to build upon our successes by expanding our CGIC through improved forensic evidence collection, processing, and analysis, bolstering our partnerships with adjacent law enforcement agencies, and tracking arrests and prosecutions, to improve the efficiency of investigations and effectiveness of prosecutions. The TPD's goal can be achieved through the following objectives that identify gaps in our current CGIC structure.

Objective 1: Increase Cellular Forensics: The TPD will purchase Cellebrite Premium to increase the ability to access password locked/encrypted digital devices and ensure full file extractions are completed with evidence collected. This purchase ensures a broader spectrum of analysis for different devices, complementing our existing systems. The TPD will purchase one standalone forensic computer to speed up multiple, simultaneous extractions with current systems. In year two, the TPD will purchase six forensic laptops to increase efficiency of data analysis for investigators and replace the older systems. This objective will begin upon receipt of the grant and approval of the purchase order. Our current cellular phone forensic team is trained on Cellebrite so this upgraded software will not reduce productivity. The expected complete date with new, fully operational Cellebrite Premium and standalone computer is December 2024 with a complete date of November 2025 for the six new forensic laptops.

Objective 2, Increase Data Processing and Analysis: The TPD will purchase a server and update our Penlink (PLX) system to increase the ability to analyze data collected through

extractions. The software allows investigators to upload multiple extractions to gain intelligence and make connections between devices. Additionally, Penlink processes and analyzes social media warrant returns to provide investigators with more evidence to identify, prosecute or link suspects to crimes or other criminals. The timetable for this objective begins concurrently with objective 1. The expected complete date for new, fully operational equipment is January 2025 due to the setup of a new server and updates to the current system.

Objective 3, Reduce Crime at Hotspots: The CGU will work with partners and criminal analysts to identify crime hotspots (through calls for service and crime data) or potential locations for retaliatory shootings and deploy repositionable LPRs to capture vehicles frequenting the area or in the area during which a crime occurs. As needed, the CGU could deploy surveillance cameras in conjunction with the LPRs and deploy cameras to suspect's residences prior to gathering video evidence or prior to search warrant executions. This evidence will generate leads to identify possible suspects, while providing prosecutorial evidence that a suspect or suspect vehicle was in the area during the timeframe of the crime and reduce risks prior to search warrant service. Further, to reduce risk during search warrant executions, the TPD will purchase a covert camera for the CGU to visually clear spaces inside of structures. The objective will begin with the purchase of LPRs, three deployable camera surveillance systems, and one covert camera for search warrants in year one, with completion date of November 2024. Three additional deployable surveillance cameras will be purchased in year two for a completion date of November 2025.

Objective 4, Increase Trained and Certified Personnel: The TPD will train and certify an additional cellular forensic investigator and bolster certifications on currently trained personnel to increase the capabilities to conduct forensic processing resulting in higher efficiency and a

decrease in backlogs. The CGU will send investigators to advanced investigation and interview training in year two (examples of training include, but not limited to ZetX Subject Matter Expert Course, NGCRC International Gang Specialist Training Conference, and Basic Homicide Investigators Course IHIA). The objective begins with training and certifying a new cellular forensic investigator by December 2024 to coincide with objective 1. Advanced training for the current forensic investigators and CGU investigators will occur in year two and be completed by September 2026.

Objective 5, Bolster Partnerships and Track Effectiveness: The SID will continue to host the monthly CGIC meeting with law enforcement partners listed above. The coordinator will reach out to adjacent agencies and invite them to attend to build “buy in” across the Tulsa metro region. Sergeant Chris Gallegos (TPD) will partner with ATF analyst Sydney Wheeler to track arrests and convictions through NESS. The TPD is in the process of rolling out a new Record Management System and the future potential is there to implement NESS+RMS. This objective will begin immediately and continue through the entirety of the grant, while reaching out to build partnerships and tracking all required data.

Capabilities and Competencies

Major Paul Fields will oversee this grant and serve as the grant administrator to ensure that all grant requirements are met, and the central point of contact to enhance partnerships and synchronize prosecutorial efforts. Major Fields has 29 years on the TPD, with 5 years as the SID Commander, and serves as the CGIC Coordinator. The direct responsibility for managing this grant will rest with Lieutenant Clint Roberts (Intel Unit) and Lieutenant Jeremy Ballard. Lieutenant Roberts will be the program manager for Objectives 1 – 4. Lieutenant Jeremy Ballard (CGU) will be the program manager for Objective 5, as well as responsible for managing the

CGU investigative activities. Lieutenant Roberts has supervised the Intel Unit (comprised of 4 investigators) for 4 years and has been with the TPD for over 20 years. Lieutenant Ballard has been a supervisor in the CGU for over 5 years, with 17 years on the TPD. As discussed above, the TPD CGIC has established a capable program that has reduced violent crime in the city of Tulsa. All partners (investigators, partner law enforcement agencies, prosecutors, analysts, lab personnel, etc.) share buy in in CGIC and are competent in their roles and responsibilities.

The TPD is experienced in grant administration and has one full time Sergeant who manages the TPD's grants and works closely with the City of Tulsa's accounting department to handle the financial aspects of this grant, including internal procedures and controls, deterring the commingling of funds, and ensuring financial reports are reconciled and submitted on time. The TPD will ensure any procurement of goods or services adheres to applicable laws, city, and department policies and procedures.

The TPD participates in the collection and reporting to DOJ of data on law enforcement use of force and deaths in custody, as well as officer suicides and officers killed and assaulted. The TPD outlines in policy and procedure the restrictions on unannounced entries, which are only conducted in special situations by our Special Operations Team (P&P 31-106C). Additionally, policy and procedure places restrictions on neck/carotid restraints, which shall be used only when deadly force is authorized (P&P 31-101A). Finally, the TPD has restrictions on the possession and use of militarized equipment.

Plan for Collecting the Data

We understand that if selected for this grant, we will be responsible for submitting regular reporting of the project performance measures, as well as the ones addressed online. Most of the data is tracked by our Public Safety Analysis Unit, Tulsa Police Forensics Lab, or CGU, and in

the few instances it is not, we will incorporate mechanisms to start tracking the information. Data will be kept in a secure central repository accessible to project participants. The CGIC will also track suspects arrested, cases prosecuted, convictions obtained, and resulting sentences through a collaboration of Sergeant Gallegos and ATF Analyst Wheeler. The project performance measures will be a combined effort between Lieutenants Ballard and Roberts.

Project evaluation is intended only to generate internal improvements to this program and meet OJP's performance measure data reporting requirements and should not be considered as research. No data identifiable to a private person will be collected.

Collecting Data on Objectives: The performance measures for objective one, assessed by Lieutenant Roberts, will include the total number of cellular phones processed by Cellebrite Premium and the success rate for accessing locked or encrypted devices, along with tracking the time it took from receiving the phone to extracting and processing the data. We will compare the success rate to the aforementioned numbers to measure the increase in successful downloads. The data for the years under the grant will be compared to 2023 to show the percentage increase (as shown in Table 3 above).

The performance measures for objective two, assessed by Lieutenant Roberts, will include the total number of data sets (cellphone extractions, social media warrant returns, etc.) analyzed in Penlink and the number of successes in providing evidence to NIBIN leads. We will calculate this data to get the success rate, similar to objective one. We will break out the associated leads from multiple cell phone extractions and social media warrant returns.

The performance measures for objective three, assessed by Lieutenant Roberts, will include the number of total deployments (LPRs and surveillance cameras) to hotspots, potential crime locations, or suspect addresses, the duration of time at each location, if a crime occurred

during the time, and if the LPR or camera generated a possible lead that assisted in the identification of a suspect. We will track the success rate as the total number of leads versus the total number of deployments. The covert camera will be utilized at every search warrant to reduce risk to officers and suspects.

The performance measures for objective four, assessed by Lieutenant Roberts, will be the documentation of certified training for the new cellular forensic investigator, as well as renewal and advanced training achieved by our current investigators. We will document the number of phones received, analyzed, and the time it took for each one. We will compare the data to previous years to assess for an increase in the overall number of processed phones and a reduction of backlogged items. The CGU training will be documented at the end of the grant period to show an increase in training across the unit. Any turnover in the unit will provide an earlier opportunity for the investigator to attend training.

The performance measures for objective five, assessed by Lieutenant Ballard, will be the timely tracking of arrests and convictions related to NIBIN leads using NESS (which the CGU started in spring of 2024). At a minimum, the data will be captured monthly during the CGIC meeting. Additionally, Lieutenant Ballard will document partnerships established during the grant period, new attendees to CGIC meetings, new policies that streamlined investigations or prosecutions, and potentially, the initiation of NESS+RMS (dependent on when the TPD's new RMS system goes online).

All performance measures will be tracked and reported to Major Fields monthly after the CGIC meeting to ensure compliance, brief updates and successes, assess for budgetary processes, and identify any gaps in the data collection and reporting.

Conclusion

Since 2019, the TPD has steadily improved in the CGIC concept and execution. As shown through the data presented, we consistently collect ballistic evidence, utilize NIBIN and eTrace in a timely manner, and established a dedicated investigative team that coordinates efforts. Where the TPD CGIC needs improvement and expansion is in forensic technology, digital evidence collection, and partners in CGIC, while documenting successes. Continuous monitoring and statistical analysis will be used to inform changes to CGIC policies, procedures, and operations. At the end of the grant period, the City of Tulsa will remain committed to sustaining the CGIC by continuing its operation and maintaining the processes created in this proposal.

References

- Bortin, Jon. 2023. "Cell Phone Statistics, 2023." *Consumer Affairs*.
- Gorsuch, Neil, J., Ruth Ginsburg, Stephen Breyer, Sonia Sotomayor, Elena Kagan, Roberts, Alito, Kavanaugh, and Thomas. 2020. "McGIRT V. OKLAHOMA." *Supreme Court of the United States*, July. https://www.supremecourt.gov/opinions/19pdf/18-9526_9okb.pdf.
- Jung, Yeondae, and Andrew Wheeler. 2023. "The effect of public surveillance cameras on crime clearance rates." *Journal of Experimental Criminology* 19: 143–164
<https://doi.org/10.1007/s11292-021-09477-8>
- Koper, Christopher S., Bruce G. Taylor, and Daniel J. Woods. 2013. "A Randomized Test of Initial and Residual Deterrence From Directed Patrols and Use of License Plate Readers at Crime Hot Spots." *Journal of Experimental Criminology* 9 (2): 213–44. <https://doi.org/10.1007/s11292-012-9170-z>.
- Lane, Jeffrey, Fanny A Ramirez, and Katy E Pearce. 2018. "Guilty by Visible Association: Socially Mediated Visibility in Gang Prosecutions." *Journal of Computer-Mediated Communication* 23 (6): 354–69. <https://doi.org/10.1093/jcmc/zmy019>.
- Morris, Sarah, Melissa Hadgkiss, Anne David, John Guinness, and Charles Frewin. 2023. "We're Making a List and We're Checking It Twice, Gonna Find Out What Makes Digital Forensic Examiners Suffice." *WIREs. Forensic Science* 5 (5). <https://doi.org/10.1002/wfs2.1487>.
- Police Foundation. 2017. "Crime Gun Intelligence Centers: Advancing Policing Through Innovation and Science." <https://crimegunintelcenters.org/wp-content/uploads/2017/07/5-THINGS-CGIC.pdf>.

Quinn, S. 2023. “The Imperative Transition to Digital Intelligence in Law Enforcement.”

Retrieved from Cellerbrite: <https://cellebrite.com/en/the-imperative-transition-to-digital-intelligence-in-law-enforcement/>

State of Oklahoma, J. Kevin Stitt, Oklahoma State Bureau of Investigation, Aungela Spurlock,

Andrea Fielding, Statistical Analysis Center, Field Services Unit, et al. 2023. “Crime in Oklahoma 2022.” https://oklahoma.gov/content/dam/ok/en/osbi/documents/sac-documents/crime-in-oklahoma/Crime_in_Oklahoma_2021_Final_Draft.pdf.

“Tulsa Police 2023 Annual Report Released.” 2024. Tulsa Police. June 14,

2024. <https://www.tulsapolice.org/post/tulsa-police-2023-annual-report-released>.

U.S. Census Bureau. n.d. “Explore Census Data.”

https://data.census.gov/profile/Tulsa_County,_Oklahoma?g=050XX00US40143