Making Gun Crime a Priority in Your Region

Enforcing the Laws on the Books
Presenters in Order of Presenting

- Dr. William King, Professor and Associate Dean for Research and Program Development in the College of Criminal Justice at Sam Houston State University
- Ron Nichols, President Nichols Forensic Science Consulting, specializing in firearm and toolmark identification and forensic-led policing
- Jim Needles, Forensic Intelligence Strategy Manager – North America, Ultra Electronics Forensic Technology
Dr. William King

Professor and associate dean for Research and Program Development in the College of Criminal Justice at Sam Houston State University. His research includes the quantitative and comparative study of police organizational structure, the process of criminal investigations, and the study of forensics systems from an organizational perspective. His academic interests are also focused on assisting criminal justice agencies with solutions derived from data and analyses.
Making Gun Crime a Priority in Your Region: Enforcing the Laws on the Books

- Optimizing ballistics imaging systems to combat violent gun crime.
- Focusing on repeat-use firearms (hot guns, crime guns), to identify high-rate, violent offenders.
- Pete Gagliardi’s (2010) three legged stool (“the right combination of people, processes, and technology” pp. 25).
  - **Technology**: IBIS, NIBIN. Ballistics imaging hardware and software.
  - **People**: Patrol, CSI, lab, investigators, crime analysts, prosecution, probation. Includes line-level, mid-level supervisors, and senior leadership.
  - **Processes**: coordinating workflow across multiple agencies to ensure efficiency.

Case studies in failure

- **Case 1: A homicide epidemic in a developing nation** (King and Wells 2015)
- A police agency and lab in a developing nation
- Lab backlogs lead to processing delays for firearms evidence
- Delays lead police to stop submitting evidence to the lab
- Lab purchased IBIS system, but...
- On average, 850 days between crime and a hit report
- 1/3rd of lab IBIS hit reports were delivered to the wrong police officer
- Homicide clearance rates (by arrest) of less than 10%

Case studies in failure

- **Case 2: Violent crime and system breakdown** (Maguire et al. 2016)

- A western, U.S. city. The 10th most violent city in U.S.

- City PD had IBIS, but their firearms technician could not confirm probable hits

- Probable hits were sent to the State Lab, which could only confirm a small percentage of hits

- On average, 2,103 days between crime and a hit report (King et al. 2013: 65).

---

What do these two cases share in common?

- People, processes, and technology must be present, and must be **aligned**
- In both cases, technology *(IBIS)* worked
- In case 1, a feedback loop (from the PD to the lab) was missing *(process)*
- In case 2, a firearms examiner was missing *(people)*
  - When a firearms examiner was hired, mean days between high confidence candidates to confirmed hit = 29.6 days *(Beggs-Cassin 2014)*.
  - The number of hits increased from 3.0/month, to 17.5/month.

---

Beggs-Cassin, M. 2014. Using technology and social network analysis to investigate gun crime in Stockton (CA) *(Unpublished master’s thesis)*. National University, La Jolla, CA.
Timeliness: Median Elapsed Days Between Crime and Hit Confirmation for 18 NIBIN Sites in the USA, 2012.

Assessing your gun crime processing capacity

• Think about the journey of physical evidence, from crime scene to lab
  • Where are the time delays?
  • Where is evidence getting stuck?
The journey of physical evidence

All Gun Crimes
  - Known to Police
  - Unknown to Police

Physical Evidence (PE)
  - PE not collected
  - PE collected

Lost
  - Storage
    - Lab
      - Unanalyzed
        - Analyzed
          - Report

Ballistics Imaging
Assessing your gun crime processing capacity

- Think about the flow of information, from witnesses and lab, to police, investigators, and prosecution
  - Where are the delays?
  - Where is information getting stopped?
  - Are end-users (investigators, prosecutors) using information?
  - Is the information useful for end-users? (King et. al forthcoming).

- Assemble a network of information producers and users
  - Scan for problems and impediments
  - Analyze the problems. Create possible solutions
  - Respond with solutions
  - Assess the impact of the solutions

Ron Nichols

25+ years of experience as a firearm and toolmark examiner at the local and federal levels in accredited laboratories. He is internationally recognized as one of the leading experts in communicating the scientific foundations of the firearm and toolmark discipline to both technical and lay audiences providing training and consultation nationally and internationally, including on behalf of the United Nations. With his expertise and training in ISO/IEC 17025 and ISO/IEC 17020 he was one of the primary architects of the successful redesign of a nationwide ballistic information network. His primary area of focus was on the implementation of more timely forensic-based strategies while remaining within accreditation guidelines.
Historically Speaking

When introduced, ballistic imaging technology was used on the back end of casework, providing a digital solution to an open case file that had been previously been a polaroid file if kept at all. Only cases actually worked by the laboratory went in to the system and due to continuous backlogs, it was likely weeks after a shooting event if not months, if at all.
Historically Speaking

Homicide 1
- No suspect
- 2 weeks
- Ballistic Imaging
- Negative

Drive-by
- No victims
- 4 weeks
- Low Priority
- ?

Drive by
- Child killed
- Ballistic Imaging
- Linked to Homicide 1
Forensic Led Policing

- Shooting Scene
  - Evidence Processing
  - Investigative Follow-up
    - Witness interviews
    - High speed analytics
    - Other crime gun intelligence
    - Submission to forensic laboratory for confirmation as necessary
    - Submittal for prosecution
  - Lead developed (15-25%)
  - No lead developed (75-85%)
  - Close and Release

- Automated Ballistic Processing
  - Evidence inventory
  - Assessment
  - Acquisition
  - Correlation Review
  - Notification within 24-72 hours of incident
Accreditation is not an Obstacle

- Forensic laboratories function under ISO/IEC 17020 or ISO/IEC 17025
- Minimum requirements do not prohibit a streamlined approach to handling of firearm-related evidence
- Homicides and assaults should be handled in the normal manner
- Don’t prioritize the backlog – it is already too late
Collaboration is Key, not Cooperation

• Collaboration
  • Take ownership of our role in responding to a problem
  • We become a source of a team-based solution
  • We understand our role is vital and take responsibility for ourselves without concern for what others are not doing
  • Respond to a crime problem hopefully reducing it in the future

• Cooperation
  • Do what we need to do to get through the problem
  • We become part of someone else’s solution
  • We resent our role and look for failings in others to absolve ourselves of responsibility
  • React to crimes that have already occurred with no vision for the future
Forensic Led Policing

• Assess strategic resource allocation and crime gun intelligence strategies related to forensic-led policing efforts for firearm-related violence

• Customize procedures, processes, and policies allowing agencies to more effectively and efficiently process and exam firearm-related evidence providing valuable crime gun intelligence to investigators within 24 to 72 hours of an incident while meeting minimum ISO/IEC 17020 and 17025 requirements

• Customize training to law enforcement and laboratory personnel in procedures and processes
Jim Needles

Forensic Intelligence Strategy Manager - North America for Ultra Electronics Forensic Technology. After 28 years of service, Jim recently retired from ATF. Jim began his ATF career as a street agent in Chicago. He was then assigned to the Office of Inspections before assignments as an ASAC in the New York, Phoenix and Chicago Field Division. Jim was also Chief, Firearms Operations Division, having national oversight of the NIBIN Branch, Firearms Trafficking Branch, Alcohol and Tobacco Diversion Branch and the Frontline Branch, which is ATF’s business model. Prior to joining ATF, Jim was a police officer in Greendale, Wisconsin and received a Bachelor of Science degree in criminal justice.
RESOLUTION

Adopted at the 119th Annual Conference
San Diego, CA
October 3, 2012

Regional Crime Gun Processing Protocols
Submitted by the Firearms Committee
FC.028.a12

RESOLVED, that the IACP views regionally applied crime gun and evidence processing protocols as a best practice for the investigation of firearm related crimes and encourages law enforcement officials, prosecuting attorneys and forensic experts to collaborate on the design of mutually agreeable protocols best suited for their region.
RESOLVED, that the IACP views regionally applied crime gun and evidence processing protocols as a best practice for the investigation of firearm related crimes and encourages law enforcement officials, prosecuting attorneys and forensic experts to collaborate on the design of mutually agreeable protocols best suited for their region.

The protocols should address each of the following critical areas:

- The thorough investigation of each gun related crime including the safe and proper collection of all crime guns & related evidence.
- The performance of appropriate NCIC transactions (e.g. stolen, recovered).
- The timely and comprehensive tracing of all crime guns through ATF & eTrace.
- The timely processing of crime gun test fires and ballistics evidence through NIBIN.
- The timely lab submission and analysis of other forensic data from crime guns and related evidence (e.g. DNA, latent fingerprints, trace evidence).
- The generation, dissemination and investigative follow-up of the intelligence derived from the application of the regional protocols.
Policy Leads the Way in New Jersey

• **Public Law 2013 CHAPTER 162** requires all NJ law enforcement make use of:
  • **NCIC** to determine & report a gun’s stolen/recovered status;
  • **eTrace** to trace the history of crime gun transactions;
  • **NIBIN** to link crimes, guns, suspects
Develop a Preventive Strategy

- Stakeholders buy-in
- Implement a regional approach
- Make NIBIN the cornerstone of the strategy
- Overlay technologies
- Know your offenders & how they interact
- Utilize one intel unit
Identify, Target and Prosecute Shooters Before They Re-offend

- Officer safety
- Make our communities safer
- More effective use of resources
Questions