



# Biometric Way Ahead

Chris Ormerod  
Section Chief  
Biometric Services Section  
Criminal Justice Information Services Division  
(CJIS)  
September 2023

# FBI CJIS Division



FBI CJIS Main



FBI CJIS Biometric Technology Center

**The mission of the FBI CJIS Division is to equip our law enforcement, national security, and intelligence community partners with the criminal justice information they need to protect the United States while preserving civil liberties.**



**FBI** FEDERAL BUREAU OF INVESTIGATION

# NGI System



- **100<sup>th</sup> Anniversary**
- **Implementation of the Next Generation Identification System in September 2014**
  - **Faster response times**
  - **Enhanced interoperability capabilities with our federal partners**
  - **State outreach**



**FBI** FEDERAL BUREAU  
OF INVESTIGATION

# Fingerprints

- **Fingerprint Repository**
  - **Criminal – 83 Million +**
  - **Civil – 70 Million +**
  - **Fiscal year (FY) 2022 – 62,538,627**
  - **Average daily receipts – 171,338**



*Photo Courtesy of fbi.gov*



# National Palm Print System (NPPS)

- **NPPS repository**
  - **Palm prints – 61 Million +**
  - **Unique identities – 28 Million +**
- **Over 15,000 palm prints added daily**
  - **49 states – Washington, D.C., 2 U.S. territories**
    - **New York is the only state not submitting palms**



## NGI Latent Support

- **Latent support**
  - **Search unidentified latent prints to identify new persons of interest**
  - **Unsolved Latent File**
    - **1.1 million + unidentified latent prints**
- **Latent Investigative Support Team and Latent Services Analysis Team**
  - **Provide research, analytical, and program management support to law enforcement partners**
  - **Facilitate the exchange of latent prints**
    - **Thousands of identifications and developments**





# Altered Biometrics

- **Altered biometrics**
  - **Fingerprint alteration, caused accidentally or deliberately**
    - **Deportation, major drug offenses, and violent crimes**
  - **Encountered at border states and ports of entry**
- **Altered Biometrics Identification Program**
  - **Identifies, researches, and corrects identity history records of individuals with altered fingerprints**
- **Altered Biometric Algorithm**
  - **Operational in December 2017**
  - **Enhancements in 2018, 2020, and 2021**
    - **Potential altered submissions**
    - **Ability to flag those identities**
- **BSS has collaborated with the Information Technology Management Section**
  - **On Roadmap for FY2024**



## FBI CJIS Division's Facial Recognition (FR)

- **NGI Interstate Photo System (IPS)**
  - **Provides two capabilities to connected federal, state, or local law enforcement**
    - **Enhanced photo enrollment, retrieval, search, and maintenance capabilities**
    - **An investigative FR search capability that allows law enforcement agencies the ability to launch an automated FR search against millions of criminal mugshot photos**
- **Statistics - NGI IPS volume (as of 07/01/2023)**
  - **141 million + criminal and civil photos**
  - **65 million + criminal photos in the matcher**
  - **28 million + unique identities**

*Investigative lead ONLY – not positive identification.*





## FBI CJIS Division's FR

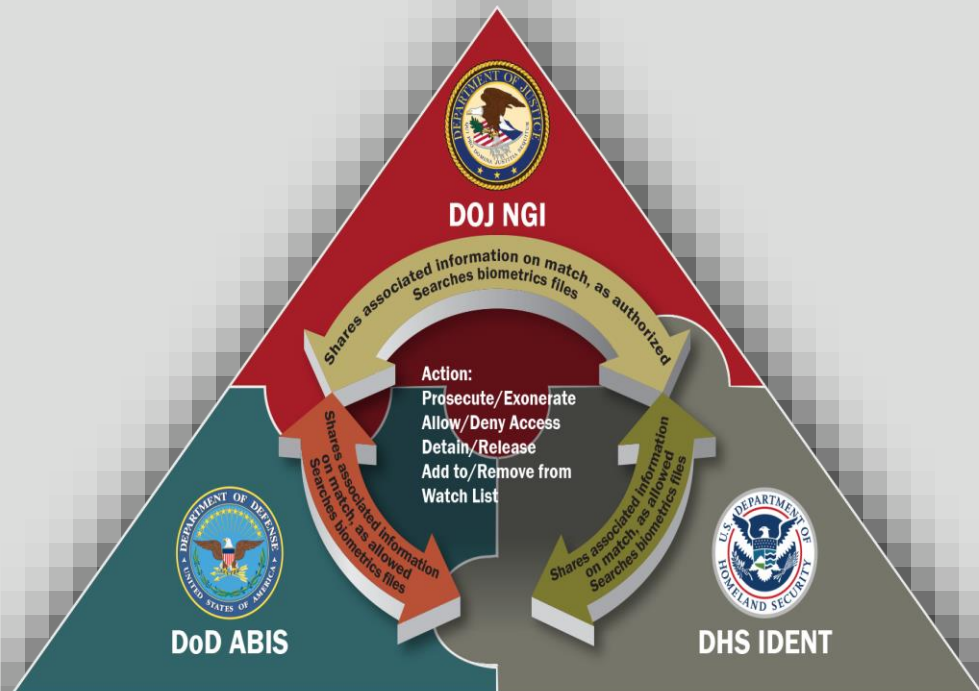
- **FACE Operations Services Team is a “customer” of the NGI IPS**
  - **Provides FR investigative lead support to the FBI field offices, operational divisions, and legal attachés**
  - **Provides assistance to federal, state, local, tribal, and international law enforcement**

Statistics	FY2022	FY2023 (through 07/01/2023)
Facial Recognition Search Requests	3,110	3,165
Investigative Leads	632	720

***Investigative lead ONLY – not positive identification.***



# Biometric Interoperability



- **Biometric Services Section manages biometric interoperability between:**
  - Department of Justice's FBI NGI System
  - Department of Homeland Security's (DHS) Automated Biometric Identification System (IDENT)
  - Department of Defense's (DOD) Automated Biometric Identification System (ABIS)
- **Result of two high-profile cases and the events of 9/11/2001**
  - Legislative acts and congressional mandates requiring interoperability between the DOJ and DHS biometric and related biographic repositories



## Biometric Interoperability

- **Biometric interoperability facilitates cross-federal, state, local, tribal, and territorial data sharing.**
  - **Provides access to FBI, DHS, and DOD biometric and related biographic data through a single query by authorized users.**
  - **Supports authorized criminal justice purposes, immigration, border security, national security, intelligence, background investigations for national security positions and certain positions of public trust, and other authorized homeland security functions.**



# Scars, Marks, and Tattoo Images

- **Current capabilities**
  - **Investigative lead via text search**
  - **Repository is maintained within the IPS repository**
- **Enhancements**
  - **Testing**
  - **Increase Repository**



## NGI Iris

- **NGI Iris capability began in September, 2020.**
- **Rapid, contactless, highly accurate identification service.**
- **Average capture time is 2 seconds with a response time of 18 seconds.**
- **Repository consists of 2.9 million + sets.**
  - **2.2 million + unique identities.**
  - **Nearly 700 domestic and international locations.**



## Double Amputee

- **Drafting resources for solutions.**
  - **Possible investigative leads.**
  - **Possible iris enrollment.**
- **Extensive research of all regulations.**
  - **Privacy Act System of Records Notice.**
  - **Collaboration with Office of the General Counsel.**
  - **Drafted a proposal to pilot the service utilizing the NGI's Iris Service Special Population Cognizant file.**





## Automation Continues

- **Contact lens pattern detection**
  - **Allows an NGI contributor that submits an iris with a patterned contact lens to be notified in seconds that the subject is wearing patterned contacts and needs to remove them and resubmit the iris image(s)**
- **Contactless Print Pilot – Repository for Individuals of Special Concern (RISC) search**
  - **Working with the National Institute of Standards and Technology (NIST) on a path forward**
  - **Pursuing a contactless fingerprint pilot**
    - **2 state preparing to participate**
    - **15 states have shown interest**



# Voice Recognition

- **Federal partner engagement**
  - **Research**
  - **Temporary duty assignment in the United Kingdom**
- **Operational**
  - **Resources**
  - **Standard Operating Procedures**
  - **Legal approvals**



# Questions?

**Chris Ormerod**  
**Biometric Services Section**  
**Section Chief**



**FBI** FEDERAL BUREAU  
OF INVESTIGATION