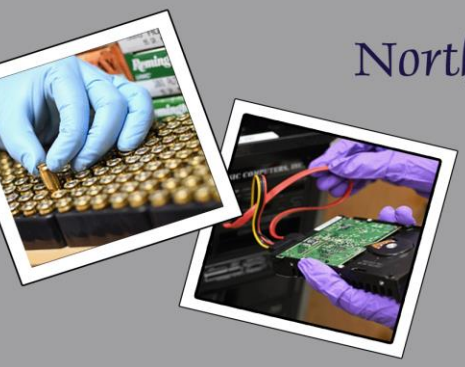

North Carolina State Crime Laboratory
Forensic Update

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Dear Criminal Justice Stakeholders,

This edition of the ***NC State Crime Laboratory Forensic Update*** takes a look at the **State Automated Fingerprint Identification System (SAFIS).** As a reminder, the Latent Evidence Section offers fingeprint, footwear and tire track analysis in all three laboratory locations.

John Byrd
Director, North Carolina State Crime Laboratory

"Truth through science so justice is served."

What is SAFIS?

The State Automated Fingerprint Identification System (SAFIS) or system throughout this article, is an investigative tool designed to search unidentified latent fingerprint and palmprint impressions recovered from evidence located at crime scenes or from unknown deceased individuals. The system is a state-operated database housed at the SBI and is available for use by the State Crime Lab (SCL) (all three locations) and local law enforcement agencies that have latent print units. The SAFIS database includes known fingerprint and/or palmprint impressions (electronic versions) that can be searched and/or pulled from the system for comparison purposes. Several different individuals have fingerprint cards in the system to include: arrestees, concealed carry permit holders, SBI employees, and State Crime Lab employees.

As of 02/04/2019, the NC SAFIS database contains ***6.95 million*** *known ten-print (fingerprint card) incident files*, and ***2.58 million*** *known palmprint incident files*. As for the latent portion of the system, there are ***95,953*** *unsolved latent print files* (ULF's) and ***26,181*** *unsolved palmprint files* (ULP's).

Currently, there is a misconception that the State Crime Lab requires a "known suspect" before submitting items to the Lab; however, any "unknown latent lifts" can be entered and searched in SAFIS without a known subject/suspect in the criminal case.

What can be entered into SAFIS?

Any unidentified latent impression (fingerprint or palmprint) that is deemed sufficient SAFIS quality by a latent print examiner can be entered into the system. At the SCL, a latent print examiner will determine if there is enough quality and quantity of information present to enter into SAFIS. Not all latent impressions can be entered into SAFIS, and must be deemed to be of SAFIS quality first. For example: the joint areas of fingers are fairly often not recorded when fingerprint cards are taken, therefore an unidentified latent joint impression in casework would reasonably not be searched in SAFIS regardless if it is sufficient for comparison purposes. These kind of latent prints would be marked as manual comparison only, and any kind of known inked impressions/fingerprint cards or elimination prints would need to be submitted in order for the Lab to conduct any comparisons. The SCL currently accepts all latent lifts containing fingerprints and palmprints for a case, *even in instances in which a suspect or victim might not be listed on the Request for Physical Examination (RFPE) form*, including all property crime cases.

What should you expect when there is a SAFIS HIT?

When a SAFIS Hit occurs, a match report containing a list of potential candidates is generated by the system. The latent print examiner who entered the unknown latent print reviews the match report and does an initial visual comparison via an electronic fingerprint card in the system. If the examiner confirms the Hit, he/she will subsequently retrieve the known inked impressions/fingerprint card

(for the individual which the Hit was made to) and conducts a second manual comparison of the original latent to the known fingerprint card. Any other unidentified latent impressions for that same case will also be subsequently compared to the retrieved fingerprint card for other identifications, exclusions, or inconclusive results. Any SAFIS Hit resulting in an identification will then be verified by another examiner. All results are documented in lab worksheets and a final lab report is created that is released to the submitting agency, DA's Offices, and any other agency and/or individuals involved in the case.

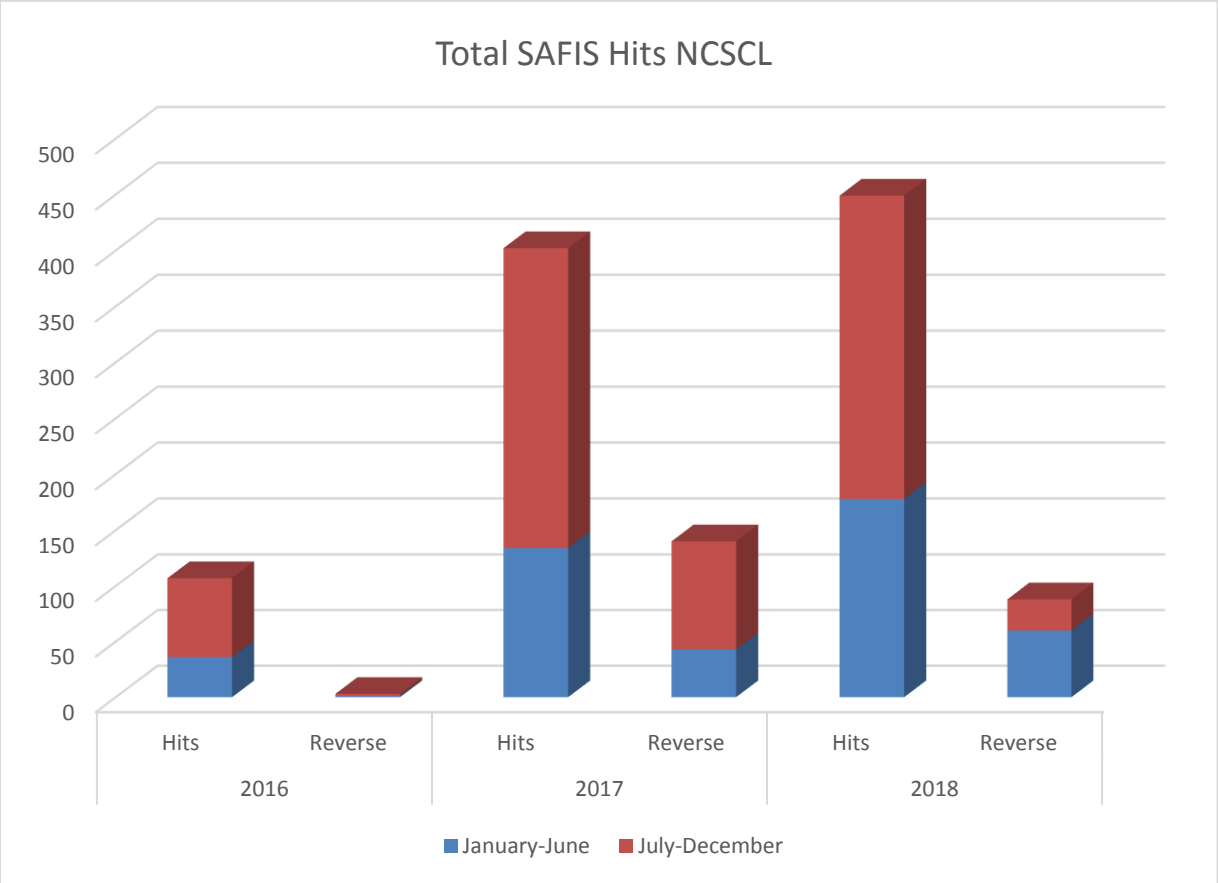
What should you expect when there is a RV SAFIS Hit?

A Reverse (RV) SAFIS Hit is very similar to a SAFIS Hit explained above, however it is a Hit from an unidentified latent impression that was previously entered, searched and retained in the system due to not being initially identified. Since the latent print was not initially identified, it is continually searched until it is identified from a RV Hit. The Hit, once confirmed and verified by an examiner, will be released (via RV Hit Memo or subsequent case record) to the submitting agency, DA's Offices, and any other agency and/or individuals involved in the case.

Using SAFIS to solve crimes

The SAFIS database is a powerful investigative tool for law enforcement agencies. Potential Hits and identifications can help the submitting law enforcement agency in making conclusions for their case, link individuals' to a specific item of evidence, or help identify a body in unknown deceased cases.

What the SCL needs from submitting agencies and limitations in searching SAFIS

The victim's known impressions (fingers and palms) should always be submitted to the SCL for elimination purposes. For all non-property crimes, the latent impression is continually searched in the system for possible Hits (regardless of whether victim impressions have been submitted). For property crimes, the latent will be discarded from the system if the victim's known impressions (fingers and palms) and identifying information are not submitted. An exception to this includes property crimes against businesses when a single victim (or several victims/elimination prints) cannot be identified.

If known impressions (fingers and palms) of the victim or other individuals are not submitted for elimination purposes, then the full name, DOB, and demographics should be provided to the SCL. With this information, the SBI Criminal Identification Section can be contacted to determine if any known impressions are available and if so, subsequently pulled for comparison purposes.