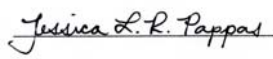
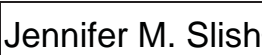


## Deviation Request Form (DRF)

Directions: The Initiator will complete Sections A through C. Additional continuation pages can be included if necessary.

<b>Initiator</b>	FSIII Jessica Pappas			<b>Date</b>	2/20/2020			
<b>A. Requested deviation applies to (Technical Procedure – include specific section):</b>								
Technical Procedure for the Use of IBIS and NIBIN 1 - Sections 5.4.4.1.1, 5.4.4.1.2, and 5.4.4.2.1 2 - Sections 3.0, 5.2, 5.2.1, 5.2.1.1 through 5.2.1.3, 5.2.2, 5.4.4.1.2 through 5.4.4.1.5, and 5.5.1 3 - Section 5.4.1 4 - Section 5.4.2								
<b>B. Requested deviation:</b>								
1 - For 5.4.4.1.1 and 5.4.4.2.1 - Change report wording examples from "K-1 firearm" to "K-1 pistol". For 5.4.4.1.2 - Change report wording example from "K-1 firearm" to "K-1 rifle". 2 - See attached document 3 - Change 5.4.1 to "Entry notifications to the submitting agency are executed in one of the following ways:" Change 5.4.1.1 to "Via laboratory report."; Renumber old 5.4.1.2 to 5.4.1.3; Create new 5.4.1.2 "Via NIBIN Entry Report." 4 - See attached document								
<b>C. Necessity for the deviation:</b>								
1 - This change would make these examples consistent across all procedures and more closely align the statements with those used in casework. 2 - To meet the ATF's Minimum Required Operating Standards (MROS) for NIBIN Sites. 3 - This will allow for the implementation of the new NIBIN Entry Report method of notification. 4 - This change will remove the NCSCL from the lead notification process.								
<b>D. Technical review and Authorization (to be completed by the Quality Manager and/or Technical Leader)</b>								
<b>Comments(to include merits and impacts):</b>								
1 - With these changes, the term "firearm" can more accurately be reserved for those firearms that do not meet the definitions of pistol, revolver, shotgun, or rifle, etc. 2 - A meeting was held to train Firearm Section personnel on the above changes. 3 - This allows for a more efficient method of releasing NIBIN results. 4 - The NCSCL may still request a lead notificaiton in a case if deemed necessary.								
<b>Approved</b>	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	<b>Duration</b> Until next procedure revision			
<b>Signature</b>	 <small>DN: OU=Firearms Section, O=North Carolina State Crime Laboratory, CN=Jessica L. R. Pappas, E=jpappas@ncdoj.gov Date: 2020-02-20 14:20:44</small>			<b>Date</b>	2/20/2020			
<b>E. Quality Assurance Authorization (to be completed by the Quality Manager, Forensic Scientist Manager or designee)</b>								
Acceptable within general QA guidelines and good laboratory practice?				<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	
Significant negative impact to Crime Laboratory Quality System?				<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	
<b>Restrictions/limitations:</b>								
Effective 2/26/2020								
<input checked="" type="checkbox"/>	Authorized	<input type="checkbox"/>	Rejected	<b>Signature</b>	 <small>Digitally signed by Jennifer M. Slish DN: cn=Jennifer M. Slish, o=North Carolina State Crime Laboratory, ou=Forensic Scientist Manager, E=jslish@ncdoj.gov, c=US Date: 2020-02-21 11:51:46</small>		<b>Date</b>	21 February 2020

## **DRF to Technical Procedure for the Use of IBIS and NIBIN**

**(dated 2/20/2020)**

### **3.0 Definitions**

**Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF)** – Federal agency responsible for administering the NIBIN network. ATF also coordinates training and protocols for the use of NIBIN and its associated technology (IBIS).

**Forensic Technology (FT)** – a division of Ultra Electronics who develops, manufactures, services, and provides training for the IBIS system.

**Validation Tasks** – automatic, self-diagnostic tests and automatic adjustments performed by the IBIS BRASSTRAX system.

**IBIS/NIBIN User** – A technician and/or firearms examiner trained by ATF, Forensic Technology, and/or a NIBIN Authorized Trainer to perform acquisition and/or correlation reviews of ballistic images on the national network.

**NIBIN Program Administrator** – An individual the NIBIN Site has designated to communicate with all parties (i.e. submitting law enforcement agencies, ATF, etc.), involved in the NIBIN process.

**Triage** – assessing cartridge cases to determine the best representative sample from a group of cartridge cases having similar firearm produced markings for IBIS/NIBIN entry.

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### **New Language**

#### **5.2 Guidelines for Entry**

**5.2.1** All evidence and test fired cartridge cases shall be screened for damage to determine suitability for entry into IBIS/NIBIN.

Remove **5.2.1.1** through **5.2.1.3**

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### **New Language**

**5.2.2** Evidence and test fired cartridge cases shall be triaged for entry into IBIS/NIBIN.

**5.4.2** For cases where the entry was correlated by the NNCTC, the NNCTC/BATFE is responsible for submitting NIBIN lead notifications to the affected agencies. The NCSCL may also request a copy of the lead notification at the time of entry on a case-by-case basis.

Remove **5.4.2.1** and **5.4.2.2**

Remove **5.4.4.1.2**, **5.4.4.1.3**, and **5.4.4.1.5**

## **New Language**

- 5.5.1** All equipment directly related to IBIS, including BRASSTRAX, must be operated according to requirements set forth by the ATF and FT. As outlined in the BRASSTRAX User Guide, the BRASSTRAX acquisition unit regularly executes validation tasks as part of its normal operation. The automatic validation tasks ensure proper maintenance of the hardware components of acquisition unit, as well as to ensure the unit is obtaining high-quality images for entry.
- 5.5.2** Validation Task Critical Error or Warning Message Received
- 5.5.2.1** If a component of the BRASSTRAX system is not performing correctly and was not automatically adjusted during a validation task, a critical error message (X) or warning message (!) will appear.
- 5.5.2.2** If an IBIS/NIBIN User receives a critical error or warning message, the user shall either:
- follow steps outlined in the BRASSTRAX User Guide to perform the necessary tune-up or adjustment of that component until resolved
  - notify an IBIS/NIBIN Technician or NIBIN Program Administrator, who may resolve the message by performing a system adjustment manually
  - contact FT directly for assistance in resolving the error or warning message
- 5.5.2.3** FT may be called at any time there is a system or component problem that an IBIS/NIBIN User is unable or not authorized to resolve.
- 5.5.3** Record of System Validation Tasks
- 5.5.3.1** The record of validation tasks made by the IBIS BRASSTRAX system is maintained electronically on the BRASSTRAX system. The maintenance of records is performed automatically by the system. The history of validation tasks made to the BRASSTRAX unit cannot be modified or deleted from the system.

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## Technical Procedure for the use of IBIS and NIBIN

**1.0 Purpose** – To outline the procedures for use of the Integrated Ballistics Identification System (IBIS) and the National Integrated Ballistic Information Network (NIBIN).

**2.0 Scope** – This procedure applies to IBIS/NIBIN Users and cartridge cases selected for entry into NIBIN.

### 3.0 Definitions

- **Correlation** – An automatic process whereby two images are compared to determine their similarity.
- **Integrated Ballistics Identification System (IBIS) BRASSTRAX™** - a computerized system for acquiring and storing the images of cartridge cases of questioned origin and those fired from known firearms.
- **Integrated Ballistics Identification System (IBIS) MATCHPOINT™** – a computerized correlation station for the analysis of digital images acquired and stored by BRASSTRAX and NIBIN.
- **National Integrated Ballistic Information Network (NIBIN)** - a database that correlates images of fired cartridge cases from crime scenes and from firearms seized during criminal investigations for the purpose of discovering associations between crimes.

### 4.0 Equipment, Materials, and Reagents

- IBIS BRASSTRAX™
- IBIS MATCHPOINT™
- Stereomicroscope
- Comparison microscope
- NIST Standard Cartridge Case, Serial Number 166

### 5.0 Procedure

#### 5.1 Submission policies

**5.1.1** All evidence shall be submitted in accordance with Laboratory policy.

**5.1.2** Individual characteristic database samples (i.e., non-evidence test-fired cartridge cases created by a submitting agency) shall be submitted on an IBIS Test-Fire Submission Form. All mandatory fields shall be completed. Multiple cases may be submitted on one IBIS Test-Fire Submission Form.

**5.1.3** A firearm submitted as an “IBIS only” case that does not function and cannot be quickly repaired shall not be test fired for NIBIN entry.

#### 5.2 Screening

**5.2.1** All evidence and test fired cartridge cases shall be screened to determine suitability for entry into IBIS.

**5.2.1.1** Age of case

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- 5.2.1.1.1** If the date of offense is older than one (1) year, it shall be left to the discretion of the Section Forensic Scientist Manager / Unit Supervisor as to whether evidence cartridge cases are entered into NIBIN.
- 5.2.1.1.2** If the seizure date of a firearm is older than one (1) year, it shall be left to the discretion of the Section Forensic Scientist Manager / Unit Supervisor as to whether test fires from that firearm are entered into NIBIN.
- 5.2.1.2** Caliber - only the calibers listed on the IBIS Test-Fire Submission Form shall be routinely entered.
- 5.2.1.2.1** At the discretion of the Section Forensic Scientist Manager or Unit Supervisor, any unspecified caliber cartridge case fired from a semiautomatic firearm may be entered into NIBIN.
- 5.2.1.2.2** Fired shotshells and cartridge cases fired in revolvers, derringers, rimfire firearms, or any other firearm that does not automatically eject fired cartridge cases are not currently being entered into NIBIN.
- 5.2.1.2.3** Specific cartridge case entries may be made for unique forensic circumstances or at the request of a court or federal agency.
- 5.2.1.3** Detail must be present in one or more of the following areas in order for the cartridge case to be entered into IBIS:
- Firing pin impression
  - Breechface impression
  - Ejector mark (7.62x39mm only)
- 5.2.2** If deemed suitable for entry in accordance with Section 5.2.1, evidence and test fired cartridge cases shall be entered into IBIS.
- 5.2.2.1** For submissions containing multiple cartridge cases, the cartridge cases shall be grouped either by class or by both class and individual characteristics. If there is more than one cartridge case suitable for entry into NIBIN, the examiner shall select the one bearing the most pronounced or the clearest individual characteristics for entry. More than one may be selected for entry if different characteristics are found to be more pronounced on different items.
- 5.2.2.2** If a questioned cartridge case has been identified to a firearm for which a test fire shall be entered, the questioned cartridge case may also be entered into IBIS. This determination will be made by the forensic scientist based upon his/her training and experience.
- 5.2.2.3** Any information pertaining to the selection of particular cartridge cases for entry into IBIS shall be documented in the case notes.
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### **5.3 IBIS entry and correlations**

**5.3.1** Only certified IBIS/NIBIN users can make entries and/or perform correlations.

**5.3.2** IBIS entries shall be made in accordance with the procedures established in the IBIS Training Guide and Quick Reference Guide for IBIS Users. Copies of both guides are maintained in the IBIS room of the Firearms Unit.

**5.3.2.1** Each item submitted on an IBIS Test-Fire Submission Form is uniquely identified in IBIS/NIBIN by the submitting agency identifier code, submitting agency case number, and the submitting agency item number.

**5.3.2.2** Evidence items are uniquely identified in IBIS/NIBIN by the North Carolina State Crime Laboratory (NCSCL) case number and the NCSCL assigned T/Q/K number.

#### **5.3.3 Correlations**

**5.3.3.1** Correlations are performed for the NCSCL by the NIBIN National Correlation and Training Center (NNCTC).

**5.3.3.2** Correlations may also be performed by NCSCL IBIS users as needed.

**5.3.3.2.1** Cartridge case entries may be correlated outside the default correlation region upon request if there is an investigative lead that points to a specific location.

**5.3.3.2.2** NCSCL IBIS users will visually compare, at a minimum, the top ten (10) correlation result images as identified by the overall Rank Sort, 2D Ring Light (RL) Sort, 2D Side Light (SL) Sort, 2D Firing Pin (FP) Sort, 3D Breechface (BF) Sort, and 3D Firing Pin (FP) Sort; and, if appropriate, the 2D Ejector (EJ) Sort. The Correlation Result listing shall be printed as Rank Sort and shall include all possible leads observed by the user. If no possible leads are noted or all possible leads fall within the top ten Rank Sort, only the top ten Rank Sort Correlation Results will be printed. The user shall indicate each possible lead on the Correlation Result listing by placing a checkmark to the left of the corresponding case number. All printouts shall be maintained in FA.

### **5.4 Entry and NIBIN lead notification**

**5.4.1** Entry notifications to the submitting agency are executed in one of two ways:

**5.4.1.1** Via laboratory report.

**5.4.1.2** By checking the “Entered Y / N” boxes on the IBIS Test-Fire Submission Form.



No test items were entered into IBIS/NIBIN. Cartridge cases test fired in the K-1 firearm were unsuitable for IBIS entry.

**5.4.4.1.2 Test Fired Cartridge Cases Not Entered, Unacceptable Caliber**

No test items fired by the K-1 firearm were entered into IBIS/NIBIN. Cartridge cases fired in caliber 22 Long Rifle firearms are not currently being entered into IBIS.

**5.4.4.1.3 Revolvers**

No test items were entered into IBIS/NIBIN. Cartridge cases fired in revolvers are not entered into IBIS.

**5.4.4.1.4 Evidence Cartridge Case Not Entered, Unsuitable**

The Q-1 fired cartridge case was unsuitable for entry into IBIS/NIBIN.

**5.4.4.1.5 Evidence Cartridge Case Not Entered, Unacceptable Caliber**

The Q-1 fired cartridge case was not entered into IBIS/NIBIN. Cartridge cases fired in caliber 38 Special firearms are not currently being entered into IBIS.

**5.4.4.2 Items Entered**

**5.4.4.2.1 Test Fired Cartridge Case Entered**

A cartridge case test fired in the K-1 firearm was entered into IBIS/NIBIN. Your agency will be notified by the NIBIN National Correlation and Training Center if any forensic leads are developed.

**5.4.4.2.2 Evidence Cartridge Case Entered**

The Q-1 fired cartridge case was entered into IBIS/NIBIN. Your agency will be notified by the NIBIN National Correlation and Training Center if any forensic leads are developed.

**5.4.4.2.3 NIBIN lead developed by NCSCL personnel**

The Q-1 fired cartridge case was entered into IBIS/NIBIN.

Based on the acquisition and correlation review of digital images by the North Carolina State Crime Laboratory (NCSCL), a NIBIN investigative lead was developed. NIBIN has indicated a possible association between the following cases:

NCSCL case R201199999 (Sheriff's Office Case 11-88888)



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NCSCCL case R201299999 (PD Case 12-88888)

THIS INFORMATION IS TO BE USED ONLY AS AN INVESTIGATIVE LEAD AS THIS POSSIBLE ASSOCIATION HAS NOT BEEN CONFIRMED. If confirmation is required for court proceedings the evidence in these cases should be resubmitted under the original NCSCCL case numbers for microscopic comparison.

**5.5 IBIS/NIBIN Quality Control**

**5.5.1** The NIST Standard Cartridge Case shall be entered monthly and in accordance with the NIST Standard Reference Material 2461 Certificate titled “User Guide for NIST SRM 2461 Standard Cartridge Cases”. The correlation for this entry shall be maintained.

**5.6 Required IBIS data reporting**

**5.6.1** IBIS entry information shall be reported as required by the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) using the report writer module of the IBIS system.

**5.7 IBIS Computer Security and Incident Response Procedures**

**5.7.1** All possible precautions shall be exercised to prevent any unauthorized access of the IBIS system and any damage to the system that could affect the network. Access to the Network is limited to individuals who have current IBIS Certification through the BATFE.

**5.7.2** BATFE shall be notified of any security issues or problems. The IBIS operator shall be responsible for following up with BATFE regarding any security incidents.

**5.8 Standards and Controls – N/A**

**5.9 Calibration – N/A**

**5.10 Maintenance** – For NIST Standard Cartridge Case maintenance information, see the Firearms Unit Technical Procedure for Instrument Calibration and Maintenance.

**5.11 Sampling – N/A**

**5.12 Calculations – N/A**

**5.13 Uncertainty of Measurement – N/A**

**6.0 Limitations – N/A**

**7.0 Safety** – Examinations performed in the Firearms Unit are inherently dangerous. These procedures involve hazardous chemicals, firearms, and ammunition. All hazardous procedures shall be performed in compliance with the State Crime Laboratory Safety Manual. If the examination involves a biohazard, the

Forensic Scientist shall use proper personal protective equipment, such as eye protection, a lab coat, and/or gloves.

## 8.0 References

Association of Firearm and Tool Mark Examiners. *Procedures Manual*. 2001.

IBIS Training Guide

IBIS Quick Reference Guide

IBIS Procedures Manual

User Guide for NIST SRM 2461 Standard Cartridge Cases

## 9.0 Records

- FA Worksheets
- Report from report writer module
- IBIS Maintenance Log

## 10.0 Attachments – N/A

Revision History		
Effective Date	Version Number	Reason
09/22/2017	1	Original Document