Biometrics Identity Management Activity (BIMA)

Electronic Biometric Transmission Specification Version 1.2 Conformance Evaluation Procedure

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Biometrics Identity Management Activity
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RECORD OF CHANGES

*A - ADDED M - MODIFIED D - DELETED

CHANGE NUMBER	DATE	NUMBER OF FIGURE, TABLE OR PARAGRAPH	A* M D	TITLE OR BRIEF DESCRIPTION
00	05 AUG 2010			Initial release.
01	15 NOV 2010		M	Revised title of document to include "DoD"
01	15 NOV 2010		M	Included "DoD" when referencing EBTS V1.2 throughout document
02	07 DEC 2010	Section 6.2	M	Modified Section 6.2, "Test Case Procedures" in line with new test case provisions.
02	07 DEC 2010	Section 6.3	M	Modified Section 6.3, "Test Case Procedures" in line with new test case provisions.
02	07 DEC 2010		A	Added acronyms throughout documentation.
03	12 JUL 2011		M	Updated Section 5.0, "Required Materials".
03	12 JUL 2011	Section 6.1	M	Revised Section 6.1, Step 1.
03	12 JUL 2011	Section 6.4	A	Added Section 6.4, Steps 5 & 6.
03	12 JUL 2011	Section 6.6	A	Added Section 6.6, Steps 2 & 4.
03	12 JUL 2011	Section 6.7	A	Added Section 6.7, Step 2.
03	12 JUL 2011	Section 6.8	M	Revised Section 6.8, Step 2.
03	12 JUL 2011	Section 6.9	M	Revised Section 6.9, Step 2.
03	12 JUL 2011	Section 6.10	M	Revised Section 6.10, Step 2.
03	12 JUL 2011	Section 6.11	M	Revised Section 6.11, Step 2.
03	12 JUL 2011	Section 6.12	M	Revised Section 6.12, Step 2.
03	12 JUL 2011	Section 6.13	M	Revised Section 6.13, Step 2.
03	12 JUL 2011	Section 6.14	M	Revised Section 6.14, Steps 2 & 3.

CHANGE NUMBER	DATE	NUMBER OF FIGURE, TABLE OR PARAGRAPH	A* M D	TITLE OR BRIEF DESCRIPTION
04	10 SEPT 2013		M	Modified font throughout documentation.
04	10 SEPT 2013		M	Modified Documentation Header.
04	10 SEPT 2013		M	Revised Organizational information.
04	10 SEPT 2013	Section 3	M	Modified Section 3, "Reference and Related Documents".
04	10 SEPT 2013	Section 4	M	Modified Section 4, "Roles and Responsibilities".
04	10 SEPT 2013	Section 5	M	Modified Section 5, "Required Materials".
04	10 SEPT 2013	Section 6	M	Modified Section 6, "Procedure".
04	10 SEPT 2013		A	Added Section for Input "Type-1 Field Map Completion Procedure".
04	10 SEPT 2013	Section 6.1	M	Modified Section 6.1, "Input Type-2 Field Map Completion Procedure".
05	20 APR 2014		M	Major Revision to bring documentation in line with new testing methodology.

EVENT PLAN USAGE POLICY STATEMENT

The Biometrics Identity Management Activity (BIMA) evaluates biometrics-enabled systems or devices that wish to share information with the Department of Defense (DoD) authoritative repository, Automated Biometric Identification System. The BIMA determines Electronic Biometric Transmission Specification Version 1.2 compliance based on the needs of the DoD Services and Agencies through a series of test and evaluation events.

Distribution of this event plan is available to authorized DoD users. It contains sensitive information as outlined in Distribution Statement E, as referenced in Department of Defense Instruction 5230.24, Test and Evaluation criteria: "To protect results of test and evaluation of commercial products or military hardware when such disclosures may cause unfair advantage or disadvantage to the manufacturer of the product."

This event plan shall be used for government use only and will not be placed on any other public website or other external distribution. Direct requests for distribution of this event plan to:

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CONTENTS

TABLES

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1. Purpose

This Conformance Evaluation Procedure outlines the processes and procedures to be followed by the Biometrics Identity Management Activity (BIMA) Technology Analysis Branch (TAB) to conduct a conformance evaluation on a biometric-enabled technology to the Department of Defense (DoD) Electronic Biometric Transmission Specification (EBTS) Version 1.2.

The DoD EBTS describes customizations of the Federal Bureau of Investigation (FBI) Criminal Justice Services Division (CJIS) Electronic Fingerprint Transmission Specification (EFTS) transactions that are necessary to utilize the DoD Automated Biometric Identification System (ABIS). The DoD ABIS is an electronic database and associated set of software applications that support the storage, matching, retrieval, and searching of fingerprint, facial, and iris data collected from persons of national security interest. This specification is designed for software engineers who develop and/or support systems that interface with the DoD ABIS.

DoD Directive 8521.01E Department of Defense Biometrics, dated 21 February 2008, establishes the Secretary of the Army (SECARMY) as the DoD Executive Agent for developing and implementing biometrics technology. The BIMA is the SECARMY executive manager for biometrics and conducts biometrics evaluation activities, including biometrics standards conformance evaluations for all products, programs, and services with appropriate test agencies. Relevant conformance evaluations include the DoD EBTS, ensuring biometrics systems support joint interoperability consistent with DoD Directive 4630.05 Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS).

2. Scope

This document describes the responsibilities of all parties concerned and covers all evaluations of DoD EBTS 1.2 conformance of all Commercial off-the-shelf (COTS)/Government off-the-shelf (GOTS) activities conducted at the BIMA laboratory or otherwise conducted by BIMA Test Engineers.

3. References and Related Documents

The following is a list of references and related documents pertaining to the creation and/or use of this document:

- BIMA MEB Concept of Operations (effective date: 22 May 2009).
- International Organization for Standards (ISO) 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories, Section 5.4 Test and calibration methods and method validation. A copy of this standard is maintained in the BIMA laboratory.
- Department of Defense Directive (DoDD) 8521.01E, Department of Defense Biometrics, 21 February 2008.

- DoD Electronic Biometric Transmission Specification (EBTS) V1.2; November 2006. A copy of this standard is maintained in the BIMA laboratory.
- FBI CJIS Electronic Fingerprint Transmission Specification (EFTS); CJIS-RS-0010 (V7.0); July 1999; to include appendices. A copy of this standard is maintained in the BIMA laboratory.
- ANSI/NIST-ITL 1-2000 Data Format for the Interchange of Fingerprint, Facial, & Scar Mark & Tattoo (SMT), Special Publication 500-245; 27 July 2000. A copy of this standard is maintained in the BIMA laboratory.
- National Crime Information Center (NCIC) Code Manual, Eighth Edition, July 14, 1999.
- Institute of Electrical and Electronics Engineers and the Electronic Industries Association (IEEE/EIA) 12207.2-1997: Standard for Information Technology - Software Life Cycle Processes - Implementation Considerations.
- BIMA Quality Manual (QM) 100
- BIMA Quality Management System (QMS) Procedures
- BIMA QMS Forms

4. Roles and Responsibilities

This section details the roles and responsibilities of those involved with testing events described in this document. Please note that one person may have multiple roles.

a. Chief, Technology Management Branch – The TAB Chief will:

- Guide BIMA Test Engineers with standards conformance evaluation events.
- Coordinate all evaluation results with BIMA leadership and BIMA TAB customers.

b. Quality Manager – The Quality Manager will:

- Provide quality assurance program management and support.
- Develop, implement and maintains QA standards, processes and controls.

c. Technical Manager – The Technical Manager will:

- Provide technical support and resources to engineering processes, equipment and facilities and ensure that processes are maintained at the highest level of safety, efficiency, productivity, quality and capability.

d. Test Engineer – The Test Engineer will:

- Perform evaluation procedures outlined in Section 6, report all issues, and assign impact codes to all issues identified.
- Conform to all QMSPs and utilize all appropriate QMS Forms

5. Required Materials

The following are required to successfully carry out the procedures outlined in Section 6 of this document:

- Required Hardware and Software
  - System Under Test (SUT) with all required:
    - Hardware
    - Software
    - Documentation (i.e. User Manual, etc)
  - Computer with:
    - Access to BCX website
    - Aware NISTPack Software Development Kit (SDK) with TransactionEdit
      - EBTS 1.2 Verification File to be used with TransactionEdit
    - Microsoft Office 2003 or newer
    - Connection to printer
- Required Standards and Reference Documents
  - DoD Electronic Biometric Transmission Specification (EBTS) V1.2; November 2006.
  - FBI CJIS Electronic Fingerprint Transmission Specification (EFTS); CJIS-RS-0010 (V7.0); July 1999.
  - ANSI/NIST-ITL 1-2000 Data Format for the Interchange of Fingerprint, Facial, & Scar Mark & Tattoo (SMT), Special Publication 500-245; 27 July 2000.
  - National Crime Information Center (NCIC) Code Manual, Eighth Edition, July 14, 1999.
  - System Under Test Manufacturer Instruction Manual(s) / User Guide(s)
- Required Test Documentation:
  - Appropriate test procedures (i.e. all MAP procedures will be needed when evaluating a SUT that has the ability to create a MAP transaction)
  - QMS 027 Emerging Results Report Template.doc
  - QMS 025 Evaluation Report Template.doc
  - DoD EBTS Memo Template

6. Procedure

The following procedures are designed to evaluate a system's conformance to DoD EBTS V1.2. The evaluation procedures are designed to evaluate a system in the following ways:

- Determine if the system allows a user to enter non-conformant data resulting in a non-conformant EFT file.
- Determine if the system produces EFT files with non-conformant data.

While the procedures are designed to evaluate a system's conformance to DoD EBTS V1.2 to its fullest extent, it should be noted that it is unrealistic to evaluate all possible input combinations for any non-trivial piece of software. This evaluation can only show the presence of errors; it cannot show the absence of errors.

All Electronic Fingerprint Transmission (EFT) file field data will be reviewed by BIMA Test Engineers using Aware NISTPack Transaction Edit™. Transaction Edit™ enables BIMA Test Engineers to review the data contents of EFT files and verify the structure of the EFT files produced by the SUT is DoD EBTS 1.2 conformant.

To asses a SUT's conformance to DoD EBTS 1.2, BIMA TAB test engineers shall perform the procedures (as applicable to the SUT) contained within Section 6 of this document and report all issues. TAB staff shall assign all issues an Impact Code of 1 – 5 as defined in IEEE 12207.2-1997 and show in Appendix L: .

6.1. Test Procedure Outline

All procedures within the EBTS V 1.2 suite follow a basic outline/process:

- Power on SUT and check configuration.
- Select TOT for evaluation.
- Complete enrollment per directions in Test Procedure.
- Save EFT file to removable media.
- Open EFT file using Transaction Edit™
- Verify EFT file against EBTS V1.2 Verification File
- Verify data in EFT file is data entered according to Test Procedure
- Verify all data records (Type-1, Type-2, etc., depending on TOT)
- Evaluate Image quality of applicable images (fingerprints, facial images, etc)
- Record all findings in appropriate areas in the test procedure.

Detailed instructions are included in each procedure. The following table shows a high-level instruction set that can be used for each Test Procedure.

Table 6-1: Test Procedure Instructions

STEP	INSTRUCTION	EXPECTED OUTPUT	NOTE
1	Request and Open the necessary Test Procedure from the Technical Manager (TM).	Word document opens.	
2	Print out Test Procedure.	Test procedure prints.	
3	Complete information on the first page, such as SUT name, version, etc.	First page information is completed.	

STEP	INSTRUCTION	EXPECTED OUTPUT	NOTE
4	Complete all 'Enrollment Steps' in the test procedure. Record 'P' for Pass, 'F' for Fail and 'N/A' for Not Applicable.	All steps have been completed.	• Only steps that cannot be executed on the SUT should be marked as N/A. • Enrollment Steps include steps for saving and moving the EFT file to a computer that has Transaction Edit.
5	Complete the remaining tables within the Test Procedure.	All tables are populated with appropriate information.	Test procedure contains more detailed information on populating tables.
6	Record the End/Stop time on the first page of the test procedure.	Test procedure is complete.	

Each test procedure suite contains information to evaluate each record type (Type-1, Type-2, Type-4, etc.) that is applicable to that TOT.

6.2. Test Suites (By TOT)

The following subsections describe the various TOTs allowed by DoD EBTS 1.2 and the test suite used to verify conformance to the DoD EBTS 1.2. Please note that response TOTs are not evaluated through this procedure as response TOTs are created by DoD ABIS and are therefore evaluated by maintainers of the DoD ABIS.

6.3. Criminal 10-Print Submission (Answer Required) (CAR) Test Procedure Suite

The DoD EBTS CAR transaction is used for detainees of Enemy Prisoners of War (EPW). CAR transactions require rolled fingerprint images. The DoD EBTS CAR transaction is a superset of the FBI EFTS CAR transaction.

Test Procedure 200 - CAR Full File Input

This procedure creates a CAR file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (14 images – Rolled and Slap); determine if fingerprints are stored correctly in EFT file (e.g., fingers are labeled correctly, etc); validate Type-4 and Type-14 (if applicable);
- Full Face (maximum number of Mug Shots allowed); Type-10 Record; determine if facial images are labeled/stored correctly;
- Iris (Left and Right) (Maximum Iris images allowed by SUT);

- Other Biometric data and Image data (e.g., collection of images of Identification or other relevant documents) will be collected (if SUT is capable);
    - This data will be evaluated against applicable standards/specifications
    - Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications.
- Maximum occurrence of each Field; determine if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a CAR transaction.

Test Procedure 201 – CAR Minimum File Input

This procedure creates a CAR file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum Fingerprint(s) allowed; determine if the system requires, at a minimum, one Fingerprint image and stores 'Amputated'/'Unable to Print' codes correctly;
- Face and Iris will be omitted (System Permitting); if omitted, BIMA test engineer will verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a CAR transaction.

Test Procedure 202 – CAR Special Input 1

This procedure creates a CAR file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);

- Determines if Fields with restrictions (e.g., Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if fingerprints have been collected in the incorrect order;
- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file
- checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Iris images not collected; right eye is marked as 'Missing' and left eye is marked as 'Unable to Capture'. BIMA test engineer verifies that no Type-16 Record is present and that Field 2.336 (Iris Images Present) is populated correctly.

This procedure should be conducted for every SUT that has the ability to create a CAR transaction.

Test Procedure 203 – CAR Special Input 2

This procedure creates a CAR file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 202;
- Full Fingerprint enrollment is collected (BIMA test engineer will attempt to collect all Flat prints to determine if SUT allows Flat prints for CAR); Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Right Iris image is collected and Left Iris is marked as Unable to Capture; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a CAR transaction.

Test Procedure 204 – CAR Special Input 3

This procedure creates a CAR file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 202 and 203;
- Auto-detection of amputated finger capability is tested (If Available); Field 2.084 is verified for correctness;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and Right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a CAR transaction.

Test Procedure 205 – CAR Special Input 4

This procedure creates a CAR file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 202, 203, and 204;
- Evaluates Fields specific to CAR transactions;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a CAR transaction.

Test Procedure 207 – CAR Required Optional

This procedure creates a CAR file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;

- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Photo and Iris image data is only collected if the system requires it.

This procedure should be conducted for every SUT that has the ability to create a CAR transaction.

Test Procedure 208 – CAR SMT Type-10

This procedure creates a CAR file to evaluate the following:

- Collect and store images of Scars, Marks, and Tattoos
- Determine if more than five (5) Type-10 Records can be collected (three SMT photos and additional facial images)
- Evaluate Type-10 Record for correctness
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file
- EFT file verification; check EFT file against EBTS V 1.2 Verification File
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- Iris data is only collected if system requires it.

This procedure is not required if the SUT does not have the ability to collect images of scars, marks or tattoos.

Test Procedure 209 – CAR Overnight Test

This procedure creates a CAR file to evaluate the following:

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct.

This procedure should be conducted for every SUT that has the ability to create a CAR transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.4. Miscellaneous Applicant (MAP) Test Procedure Suite

The DoD EBTS MAP transaction is used for background checks for local nationals and third country nationals who desire access to U.S. military installations or other restricted areas. MAP transactions require rolled or flat fingerprint images. The DoD EBTS MAP transaction is a superset of the EFTS MAP transaction.

The following subsections describe each test procedure included in the MAP test suite.

Test Procedure 100 - MAP Full File Input

This procedure creates a MAP file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (14 Images – Rolled and Slaps); determine if fingerprints are stored correctly in EFT file (e.g., Fingers are labeled correctly, etc); validate Type-4 and Type-14 (If Applicable);
- Full Face (Maximum number of Mug Shots allowed by SUT); check Type-10 Record; determine if facial images are labeled/stored correctly;
- Iris (Left and Right) (Maximum Iris images allowed by SUT)
- Other Biometric data and Image data (e.g., Collection of images of Identification or other relevant documents, etc) will be collected (System Permitting);
    - This data was evaluated against applicable standards/specifications
    - Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications.
- Maximum occurrence of each Field; determine if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verify that the data entered by the Biometric Identity Management Activity (BIMA) test engineers is what is stored in EFT file;
- Check to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly by the system;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a MAP transaction.

Test Procedure 101 – MAP Minimum File Input

This procedure creates a MAP file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum fingerprint(s) allowed; determine if the system requires, at a minimum, one Fingerprint image and stores 'Amputated'/'Unable to Print' codes correctly;
- Face and Iris images will be omitted (System Permitting); if omitted, BIMA test engineer will verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;

- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a MAP transaction.

Test Procedure 102 – MAP Special Input 1

This procedure creates a MAP file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g., Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- One Face image is collected; Type-10 Record is verified for correctness;
- Iris images not collected; Right eye is marked as 'Missing' and left eye is marked as 'Unable to Capture'. BIMA test engineer verifies that no Type-16 Record is present and that Field 2.336 (Iris Images Present) is populated correctly.

This procedure should be conducted for every SUT that has the ability to create a MAP transaction.

Test Procedure 103 – MAP Special Input 2

This procedure creates a MAP file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 102;

- Full Fingerprint enrollment is collected (BIMA test engineer will attempt to collect all Flat prints to determine if SUT allows Flat prints for MAP); Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Right Iris image is collected and left iris is marked as Unable to Capture; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a MAP transaction.

Test Procedure 104 – MAP Special Input 3

This procedure creates a MAP file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 102 and 103;
- Auto-detection of amputated finger capability is tested (If Available); Field 2.084 is verified for correctness;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a MAP transaction.

Test Procedure 105 – MAP Special Input 4

This procedure creates a MAP file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 102, 103 and 104;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a MAP transaction.

Test Procedure 106 – MAP Required Optional

This procedure creates a MAP file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2.;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Photo and Iris data is only collected if the system requires it.

This procedure should be conducted for every SUT that has the ability to create a MAP transaction.

Test Procedure 107 – MAP Scar, Mark, and Tattoo (SMT) Type-10.

This procedure creates a MAP file to evaluate the following:

- Collect and store images of Scars, Marks, and Tattoos;
- Determine if more than five (5) Type-10 Records can be collected (three Scar, Mark, and Tattoo photos and additional Facial images);
- Evaluate Type-10 Record for correctness;
- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Iris data is collected (only if SUT requires).

This procedure is not required if the SUT does not have the ability to collect images of scars, marks or tattoos.

Test Procedure 108 – MAP Overnight Test

This procedure creates a MAP file to evaluate the following:

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct;

This procedure should be conducted for every SUT that has the ability to create a MAP transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.5. Federal Applicant No Charge (FANC) Test Procedure Suite

The DoD EBTS FANC transaction is used as a background check for enlisting U.S. military, DoD civilians, and DoD contractors. FANC transactions require rolled or flat fingerprint images. The DoD EBTS MAP transaction is a superset of the EFTS FANC transaction.

The following subsections describe each test procedure included in the FANC test suite.

Test Procedure 400 - FANC Full File Input

This procedure creates a FANC file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (14 Images – Rolled and Slaps); determine if fingerprints are stored correctly in EFT file (e.g., Fingers are labeled correctly, etc); validate Type-4 and Type-14 (If Applicable);
- Full Face (Maximum number of Mug Shots allowed by SUT); check Type-10 Record; determine if facial images are labeled/stored correctly;
- Iris (Left and Right) (Maximum Iris images allowed by SUT)
- Other Biometric data and Image data (e.g., Collection of images of Identification or other relevant documents, etc) will be collected (System Permitting);
  - This data was evaluated against applicable standards/specifications
  - Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications.
- Maximum occurrence of each Field; determine if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verify that the data entered by the Biometric Identity Management Activity (BIMA) test engineers is what is stored in EFT file;

- Check to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly by the system;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a FANC transaction.

Test Procedure 401 – FANC Minimum File Input

This procedure creates a FANC file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum fingerprint(s) allowed; determine if the system requires, at a minimum, one Fingerprint image and stores 'Amputated'/'Unable to Print' codes correctly;
- Face and Iris images will be omitted (System Permitting); if omitted, BIMA test engineer will verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a FANC transaction.

Test Procedure 402 – FANC Special Input 1

This procedure creates a FANC file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g., Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;

- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- One Face image is collected; Type-10 Record is verified for correctness;
- Iris images not collected; Right eye is marked as 'Missing' and left eye is marked as 'Unable to Capture'. BIMA test engineer verifies that no Type-16 Record is present and that Field 2.336 (Iris Images Present) is populated correctly.

This procedure should be conducted for every SUT that has the ability to create a FANC transaction.

Test Procedure 403 – FANC Special Input 2

This procedure creates a FANC file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 402;
- Full Fingerprint enrollment is collected (BIMA test engineer will attempt to collect all Flat prints to determine if SUT allows Flat prints for FANC); Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Right Iris image is collected and left iris is marked as Unable to Capture; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a FANC transaction.

Test Procedure 404 – FANC Special Input 3

This procedure creates a FANC file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 402 and 403;
- Auto-detection of amputated finger capability is tested (If Available); Field 2.084 is verified for correctness;

- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a FANC transaction.

Test Procedure 405 – FANC Special Input 4

This procedure creates a FANC file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 402, 403 and 404;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a FANC transaction.

Test Procedure 406 – FANC Required Optional

This procedure creates a FANC file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2.;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

- Photo and Iris data is only collected if the system requires it.

This procedure should be conducted for every SUT that has the ability to create a FANC transaction.

Test Procedure 407 – FANC Scar, Mark, and Tattoo (SMT) Type-10.

This procedure creates a FANC file to evaluate the following:

- Collect and store images of Scars, Marks, and Tattoos;
- Determine if more than five (5) Type-10 Records can be collected (three Scar, Mark, and Tattoo photos and additional Facial images);
- Evaluate Type-10 Record for correctness;
- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Iris data is collected (only if SUT requires).

This procedure is not required if the SUT does not have the ability to collect images of scars, marks or tattoos.

Test Procedure 408 – FANC Overnight Test

This procedure creates a FANC file to evaluate the following:

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct;

This procedure should be conducted for every SUT that has the ability to create a FANC transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.6. Known Deceased (DEK) Test Procedure Suite

The DoD EBTS DEK transaction is used for a deceased subject who identity is known. DEK transactions require rolled fingerprint images.

Test Procedure 600 - DEK Full File Input

This procedure creates a DEK file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (14 Images – Rolled and Slaps); determine if fingerprints are stored correctly in EFT file (e.g., Fingers are labeled correctly, etc); validate Type-4 and Type-14 (If Applicable);
- Full Face (Maximum number of Mug Shots allowed by SUT); check Type-10 Record; determine if facial images are labeled/stored correctly;
- Iris (Left and Right) (Maximum Iris images allowed by SUT)
- Other Biometric data and Image data (e.g., Collection of images of Identification or other relevant documents, etc) will be collected (System Permitting);
  - This data was evaluated against applicable standards/specifications
  - Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications.
- Maximum occurrence of each Field; determine if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verify that the data entered by the Biometric Identity Management Activity (BIMA) test engineers is what is stored in EFT file;
- Check to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly by the system;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a DEK transaction.

Test Procedure 601 – DEK Minimum File Input

This procedure creates a DEK file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum fingerprint(s) allowed; determine if the system requires, at a minimum, one Fingerprint image and stores 'Amputated'/'Unable to Print' codes correctly;
- Face and Iris images will be omitted (System Permitting); if omitted, BIMA test engineer will verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File

- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a DEK transaction.

Test Procedure 602 – DEK Special Input 1

This procedure creates a DEK file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g., Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- One Face image is collected; Type-10 Record is verified for correctness;
- Iris images not collected; Right eye is marked as 'Missing' and left eye is marked as 'Unable to Capture'. BIMA test engineer verifies that no Type-16 Record is present and that Field 2.336 (Iris Images Present) is populated correctly.

This procedure should be conducted for every SUT that has the ability to create a DEK transaction.

Test Procedure 603 – DEK Special Input 2

This procedure creates a DEK file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 602;
- Full Fingerprint enrollment is collected (BIMA test engineer will attempt to collect all Flat prints to determine if SUT allows Flat prints for DEK); Type-4 and Type-14 (If Available) are verified for correctness;

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Right Iris image is collected and left iris is marked as Unable to Capture; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DEK transaction.

Test Procedure 604 – DEK Special Input 3

This procedure creates a DEK file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 602 and 603;
- Auto-detection of amputated finger capability is tested (If Available); Field 2.084 is verified for correctness;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DEK transaction.

Test Procedure 605 – DEK Special Input 4

This procedure creates a DEK file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 602, 603 and 604;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;

- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DEK transaction.

Test Procedure 606 – DEK Required Optional

This procedure creates a DEK file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2.;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Photo and Iris data is only collected if the system requires it.

This procedure should be conducted for every SUT that has the ability to create a DEK transaction.

Test Procedure 607 – DEK Scar, Mark, and Tattoo (SMT) Type-10.

This procedure creates a DEK file to evaluate the following:

- Collect and store images of Scars, Marks, and Tattoos;
- Determine if more than five (5) Type-10 Records can be collected (three Scar, Mark, and Tattoo photos and additional Facial images);
- Evaluate Type-10 Record for correctness;
- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Iris data is collected (only if SUT requires).

This procedure is not required if the SUT does not have the ability to collect images of scars, marks or tattoos.

Test Procedure 608 – DEK Overnight Test

This procedure creates a DEK file to evaluate the following:

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct;

This procedure should be conducted for every SUT that has the ability to create a DEK transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.7. Unknown Deceased (DEU) Test Procedure Suite

The DoD EBTS DEU transaction is used for a deceased subject who identity is unknown. DEK transactions require rolled fingerprint images.

Test Procedure 700 - DEU Full File Input

This procedure creates a DEU file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (14 Images – Rolled and Slaps); determine if fingerprints are stored correctly in EFT file (e.g., Fingers are labeled correctly, etc); validate Type-4 and Type-14 (If Applicable);
- Full Face (Maximum number of Mug Shots allowed by SUT); check Type-10 Record; determine if facial images are labeled/stored correctly;
- Iris (Left and Right) (Maximum Iris images allowed by SUT)
- Other Biometric data and Image data (e.g., Collection of images of Identification or other relevant documents, etc) will be collected (System Permitting);
  - This data was evaluated against applicable standards/specifications
  - Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications.
- Maximum occurrence of each Field; determine if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verify that the data entered by the Biometric Identity Management Activity (BIMA) test engineers is what is stored in EFT file;
- Check to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly by the system;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a DEU transaction.

Test Procedure 701 – DEU Minimum File Input

This procedure creates a DEU file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum fingerprint(s) allowed; determine if the system requires, at a minimum, one Fingerprint image and stores 'Amputated'/'Unable to Print' codes correctly;
- Face and Iris images will be omitted (System Permitting); if omitted, BIMA test engineer will verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a DEU transaction.

Test Procedure 702 – DEU Special Input 1

This procedure creates a DEU file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g., Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;

- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- One Face image is collected; Type-10 Record is verified for correctness;
- Iris images not collected; Right eye is marked as 'Missing' and left eye is marked as 'Unable to Capture'. BIMA test engineer verifies that no Type-16 Record is present and that Field 2.336 (Iris Images Present) is populated correctly.

This procedure should be conducted for every SUT that has the ability to create a DEU transaction.

Test Procedure 703 – DEU Special Input 2

This procedure creates a DEU file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 702;
- Full Fingerprint enrollment is collected (BIMA test engineer will attempt to collect all Flat prints to determine if SUT allows Flat prints for DEU); Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Right Iris image is collected and left iris is marked as Unable to Capture; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DEU transaction.

Test Procedure 704 – DEU Special Input 3

This procedure creates a DEU file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 702 and 703;
- Auto-detection of amputated finger capability is tested (If Available); Field 2.084 is verified for correctness;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection);

- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DEU transaction.

Test Procedure 705 – DEU Special Input 4

This procedure creates a DEU file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 702, 703 and 704;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DEU transaction.

Test Procedure 706 – DEU Required Optional

This procedure creates a DEU file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2.;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Photo and Iris data is only collected if the system requires it.

This procedure should be conducted for every SUT that has the ability to create a DEU transaction.

Test Procedure 707 – DEU Scar, Mark, and Tattoo (SMT) Type-10.

This procedure creates a DEU file to evaluate the following:

- Collect and store images of Scars, Marks, and Tattoos;
- Determine if more than five (5) Type-10 Records can be collected (three Scar, Mark, and Tattoo photos and additional Facial images);
- Evaluate Type-10 Record for correctness;
- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Iris data is collected (only if SUT requires).

This procedure is not required if the SUT does not have the ability to collect images of scars, marks or tattoos.

Test Procedure 708 – DEU Overnight Test

This procedure creates a DEU file to evaluate the following:

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct;

This procedure should be conducted for every SUT that has the ability to create a DEU transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.8. Ten-print Rap Sheet Search (TPRS) Test Procedure Suite

The DoD EBTS TPRS transaction is used as part of a quick background check by the U.S. military. FANC transactions require flat fingerprint images. Demographic information is permitted but not required. The DoD EBTS TPRS transaction has the same field requirements as the EFTS TPIS transaction.

Test Procedure 500 - TPRS Full File Input

This procedure creates a TPRS file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (10 Flat Images); determine if fingerprints are stored correctly in EFT file (e.g., Fingers are labeled correctly, etc); validate Type-4;
- Verify no Type-14 records are present (not permitted by EBTS 1.2);
- Verify no Type-10 or Type-16 (face or iris) records are present;

- Maximum fingerprint minutia data is entered and verified for correctness in Type-9 record.
- Other Biometric data and Image data (e.g., Collection of images of Identification or other relevant documents, etc) will be collected (System Permitting);
    - This data was evaluated against applicable standards/specifications
    - Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications.
- Maximum occurrence of each Field; determine if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verify that the data entered by the Biometric Identity Management Activity (BIMA) test engineers is what is stored in EFT file;
- Check to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly by the system;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a TPRS transaction.

Test Procedure 501 – TPRS Minimum File Input

This procedure creates a TPRS file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum fingerprint(s) allowed; determine if the system requires, at a minimum, two Fingerprint images;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Verify that unsupported fields are not included.

This procedure should be conducted for every SUT that has the ability to create a TPRS transaction.

Test Procedure 502 – TPRS Special Input 1

This procedure creates a TPRS file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g., Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment is collected; Type-4 is verified for correctness ;
- Verify that Type-14 is omitted ;
- Fingerprint minutia data is entered and verified for correctness in Type-9 record.
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a TPRS transaction.

Test Procedure 503 – TPRS Special Input 2

This procedure creates a TPRS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 502;
- Full Fingerprint enrollment is collected; Type-4 verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Fingerprint minutia data is entered and verified for correctness in Type-9 record.

This procedure should be conducted for every SUT that has the ability to create a TPRS transaction.

Test Procedure 504 – TPRS Special Input 3

This procedure creates a TPRS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 502 and 503;

- Auto-detection of amputated finger capability is tested (If Available); Field 2.084 is verified for correctness;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e, Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a TPRS transaction.

Test Procedure 505 – TPRS Required Optional

This procedure creates a TPRS file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2.;
- Full Fingerprint enrollment is collected; Type-4 verified for correctness;
- Maximum fingerprint minutia data is entered and verified for correctness in Type-9 record.
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a TPRS transaction.

Test Procedure 506 – TPRS Overnight Test

This procedure creates a TPRS file to evaluate the following:

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct;

This procedure should be conducted for every SUT that has the ability to create a TPRS transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.9. DoD Flat Print Rap Sheet Search (DPRS) Test Procedure Suite

The DoD EBTS DPRS transaction is used only in certain circumstances such as legacy data submission and situations where acquiring full rolled fingerprints may not be feasible. DPRS transactions accept rolled or flat fingerprint images. The DoD EBTS DPRS transaction is a superset of the EFTS TPRS transaction.

Test Procedure 300- DPRS Full File Input

This procedure creates a DPRS file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (14 images – rolled and slap); determine if fingerprints are of and stored correctly in EFT file (fingers are labeled correctly, etc); validate Type-4 and Type-14 (if applicable);
- Full Face (Maximum number of Mug Shots allowed); determine if facial images are of; check Type-10 Record; determine if facial images are labeled/stored correctly;
- Iris (Left and Right) (Maximum Iris images allowed by SUT)
- Other biometric data and image data (e.g., collection of images of Identification or other relevant documents) will be collected if SUT is capable,
  - o This data will be evaluated against applicable standards/specifications,
  - o Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications.;
- Maximum occurrence of each Field if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction.

Test Procedure 301 – DPRS Minimum File Input

This procedure creates a DPRS file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;

- Minimum Fingerprint(s) allowed (determine if the system only requires one fingerprint; DPRS only requires one print and 'No Amputation'/'Unable to Print' codes to be entered)
- Face and Iris images will be omitted (System Permitting); if omitted, BIMA test engineer will verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction.

Test Procedure 302 – DPRS Special Input 1

This procedure creates a DPRS file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g. Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if Fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Face image is collected; Type-10 Record is verified for correctness;
- Iris images not collected; Right eye is marked as 'Missing' and Left eye is marked as 'Unable to Capture'. BIMA test engineer verifies that no Type-16 Record is present and that Field 2.336 (Iris Images Present) is populated correctly.

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction.

Test Procedure 303 – DPRS Special Input 2

This procedure creates a DPRS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 302;
- Full fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Right Iris image is collected and Left Iris is marked as 'Unable to Capture'; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction.

Test Procedure 304 – DPRS Special Input 3

This procedure creates a DPRS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 302 and 303;
- Auto-detection of amputated finger capability is tested (If Available); Field 2.084 is verified for correctness;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and Right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction.

Test Procedure 305 – DPRS Special Input 4

This procedure creates a DPRS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 302, 303 and 304;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- One Facial image is collected; Type-10 Record is verified for correctness;
- Left and Right Iris images are collected; Type-16 Record is verified for correctness; Field 2.336 is verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction.

Test Procedure 306 – DPRS Required Optional

This procedure creates a DPRS file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Photo and Iris data is only collected if the system requires it.

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction.

Test Procedure 307 – DPRS SMT Type-10

This procedure creates a DPRS file to evaluate the following:

- Collect and store images of Scars, Marks, and Tattoos;
- Determine if more than five (5) Type-10 Records can be collected (three (3) SMT photos and additional Facial images);
- Evaluate Type-10 Record for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

- Iris data is only collected if system requires it.

This procedure is not required if the SUT does not have the ability to collect images of scars, marks or tattoos.

Test Procedure 308 – DPRS Overnight Test

This procedure creates a DPRS file to evaluate the following:

- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct.

This procedure should be conducted for every SUT that has the ability to create a DPRS transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.10.   Latent Fingerprint Image Search (LFIS) Test Procedure Suite

The DoD EBTS LFIS transaction is used for latent image searches. LFIS transactions require circumstances for latent collection, item from which print was lifted, any unique item descriptor, and contact information (to be included in Notes field).

Test Procedure 900- LFIS Full File Input

This procedure creates a LFIS file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (10 images); determine if fingerprints are of and stored correctly in EFT file (fingers are labeled correctly, etc); validate Type-4 and Type-14 (if applicable);
- Verify no Type-10 record is present;
- Maximum number of high resolution (1000 ppi latent images) are entered; verified for correctness in Type-13 record
- Verify no Type-16 record is present;
- Other biometric data and image data (e.g., collection of images of Identification or other relevant documents) will be collected if SUT is capable,
  - This data will be evaluated against applicable standards/specifications,
  - Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications;

- Maximum occurrence of each Field if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- Two Type-2 records will be corrected if system allows and verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a LFIS transaction.

Test Procedure 901 – LFIS Minimum File Input

This procedure creates a LFIS file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum Fingerprint(s) allowed (LFIS requires zero fingerprints)
- Minimum high resolution latent images allowed (LFIS requires zero images)
- Verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a LFIS transaction.

Test Procedure 902 – LFIS Special Input 1

This procedure creates a LFIS file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g. Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if Fingerprints images have been collected in the incorrect order;

- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Full set of high resolution latent images are collected and verified;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Verify that no Type-10 and Type-16 records are present.

This procedure should be conducted for every SUT that has the ability to create a LFIS transaction.

Test Procedure 903 – LFIS Special Input 2

This procedure creates a LFIS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 902;
- Full fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Full latent images collected and verified for correctness (Type-13 record);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Verifies that unsupported records are not used.

This procedure should be conducted for every SUT that has the ability to create a LFIS transaction.

Test Procedure 904 – LFIS Special Input 3

This procedure creates a LFIS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 902 and 903;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Latent images collected and verified for correctness (Type-13 record);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file

- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Latent images collected and verified for correctness (Type-13 record);
- Verifies that unsupported records are not used.

This procedure should be conducted for every SUT that has the ability to create a LFIS transaction.

Test Procedure 905 – LFIS Required Optional

This procedure creates a LFIS file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Full latent images collected and verified for correctness (Type-13 record);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a LFIS transaction.

Test Procedure 906 – LFIS Overnight Test

This procedure creates a LFIS file to evaluate the following:

- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct.

This procedure should be conducted for every SUT that has the ability to create a LFIS transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.11. Latent Fingerprint Feature Search (LFFS) Test Procedure Suite

The DoD EBTS LFFS transaction is used for latent feature searches. LFFS transactions require circumstances for latent collection, item from which print was lifted, any unique item

descriptor, and contact information (to be included in Notes field). LFFS transactions require fingerprint images as well as feature data.

Test Procedure 1000- LFFS Full File Input

This procedure creates a LFFS file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (10 images); determine if fingerprints are of and stored correctly in EFT file (fingers are labeled correctly, etc); validate Type-4 and Type-14 (if applicable);
- Verify no Type-10 record is present;
- Maximum number of latent images are entered; verified for correctness in Type-7 (low resolution) and Type-13 (high resolution) records;
- Maximum number of minutia data information is entered and verified in Type-9 record;
- Verify no Type-16 record is present;
- Other biometric data and image data (e.g., collection of images of Identification or other relevant documents) will be collected if SUT is capable,
  - o This data will be evaluated against applicable standards/specifications,
  - o Data collected that is not in EBTS will be evaluated to determine if DoD ABIS can accept the data without complications;
- Maximum occurrence of each Field if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- Two Type-2 records will be corrected if system allows and verified for correctness.

This procedure should be conducted for every SUT that has the ability to create a LFFS transaction.

Test Procedure 1001 – LFFS Minimum File Input

This procedure creates a LFFS file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum Fingerprint(s) allowed (LFFS requires zero fingerprints)
- Minimum latent images allowed (LFFS requires zero images)

- Minimum minutia data is entered (1 is required for LFFS)
- Verify that no Type-10 or Type-16 Records are present;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a LFFS transaction.

Test Procedure 1002 – LFFS Special Input 1

This procedure creates a LFFS file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g. Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if Fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment (Rolled) is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Full set of latent images are collected and verified;
- Full set of minutia data is collected and verified;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Verify that no Type-10 and Type-16 records are present.

This procedure should be conducted for every SUT that has the ability to create a LFFS transaction.

Test Procedure 1003 – LFFS Special Input 2

This procedure creates a LFFS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 1002;
- Full fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Full latent images collected and verified for correctness (Type-7 and Type-13 records);
- Minutia data is collected and verified;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Verifies that unsupported records are not used.

This procedure should be conducted for every SUT that has the ability to create a LFFS transaction.

Test Procedure 1004 – LFFS Special Input 3

This procedure creates a LFFS file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 1002 and 1003;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Latent images collected and verified for correctness (Type-13 record);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Latent images collected and verified for correctness (Type-13 record);
- Verifies that unsupported records are not used.

This procedure should be conducted for every SUT that has the ability to create a LFFS transaction.

Test Procedure 1005 – LFFS Required Optional

This procedure creates a LFFS file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2;
- Full Fingerprint enrollment is collected; Type-4 and Type-14 (If Available) are verified for correctness;
- Full latent images collected and verified for correctness (Type-13 record);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;

- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a LFFS transaction.

Test Procedure 1006 – LFFS Overnight Test

This procedure creates a LFFS file to evaluate the following:

- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct.

This procedure should be conducted for every SUT that has the ability to create a LFFS transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.12.   Verification Electronic Submission (VER) Test Procedure Suite

The DoD EBTS VER transaction is used to verify an identity for check points and physical/logical access applications. VER transactions require an unique identifier that must be on file with the verification system in order to perform the lookup. Unique identifiers include Social Security Number, Electronic Data Interchange Personal Identifier (EDIPI), Internment Serial Number (ISN), Biometrics Automated Toolset (BAT) Global Unique Identifier, Defense Biometric Identification System (DBIDS) ID, or DoD Number.

Test Procedure 1100- VER Full File Input

This procedure creates a VER file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Full Fingerprint enrollment (14 images); determine if fingerprints are of and stored correctly in EFT file (fingers are labeled correctly, etc); validate Type-4;
- Verify Type-14 record is not used;
- Full latent image is used – low resolution (Type-7) only. Type-7 is verified for correctness and accuracy;
- Maximum occurrence of each Field if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;

- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a VER transaction.

Test Procedure 1101 – VER Minimum File Input

This procedure creates a VER file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Minimum Fingerprint(s) allowed (determine if the system only requires one fingerprint; VER only requires one print;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).

This procedure should be conducted for every SUT that has the ability to create a VER transaction.

Test Procedure 1102 – VER Special Input 1

This procedure creates a VER file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g. Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Sequence checking; determine if system alerts user if Fingerprints images have been collected in the incorrect order;
- Full Fingerprint enrollment is collected; Type-4 is verified for correctness;
- Latent images are collected and verified for correctness;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;

- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a VER transaction.

Test Procedure 1103 – VER Special Input 2

This procedure creates a VER file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedure 1102;
- Full fingerprint enrollment is collected; Type-4 is verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a VER transaction.

Test Procedure 1104 – VER Special Input 3

This procedure creates a VER file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 1102 and 1103;
- Full Fingerprint enrollment is collected; Type-4 is verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a VER transaction.

Test Procedure 1105 – VER Special Input 4

This procedure creates a VER file to evaluate the following:

- Verifies additional special character scenarios not covered in Test Procedures 1102, 1103 and 1104;
- Full Fingerprint enrollment is collected; Type-4 is verified for correctness;
- Full latent images are collected; Type-7 is verified for correctness;

- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

This procedure should be conducted for every SUT that has the ability to create a VER transaction.

Test Procedure 1106 – VER Required Optional

This procedure creates a VER file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2;
- Full Fingerprint enrollment is collected; Type-4 is verified for correctness;
- Latent images are collected and verified for correctness;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- Photo and Iris data is only collected if the system requires it.

This procedure should be conducted for every SUT that has the ability to create a VER transaction.

Test Procedure 1108 – VER Overnight Test

This procedure creates a VER file to evaluate the following:

- Verifies that the data entered by the BIMA test is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- System collects Type-2 data on first day of test and biometric data on second day of test. This is to verify that the dates for collection of biometrics are correct.

This procedure should be conducted for every SUT that has the ability to create a VER transaction; however it may not be possible to complete this procedure if the SUT does not allow the user to stop a transaction and complete it at a later date/time.

6.13. Fingerprint Image Request (IRQ) Test Procedure Suite

The DoD EBTS IRQ transaction is used for retrieval of fingerprint images from DoD ABIS.

Test Procedure 1200- IRQ Full File Input

This procedure creates a IRQ file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Maximum occurrence of each Field if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- IRQ only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create an IRQ transaction.

Test Procedure 1201 – IRQ Minimum File Input

This procedure creates an IRQ file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- IRQ only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create an IRQ transaction.

Test Procedure 1202 – IRQ Special Input 1

This procedure creates an IRQ file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g. Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;

- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- IRQ only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create an IRQ transaction.

Test Procedure 1206 – IRQ Required Optional

This procedure creates an IRQ file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- IRQ only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create an IRQ transaction.

6.14. Subject Photo Request (CPR)

The DoD EBTS CPR transaction is used for retrieval of photo images from DoD ABIS.

Test Procedure 1300- CPR Full File Input

This procedure creates a CPR file to evaluate the following:

- Maximum values and/or maximum Field lengths; determine if the SUT allows more than the maximum allowed by EBTS V 1.2;
- Maximum occurrence of each Field if SUT allows more than the maximum occurrences allowed by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;

- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection).
- CPR only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create a CPR transaction.

Test Procedure 1301 – CPR Minimum File Input

This procedure creates a CPR file to evaluate the following:

- Minimum values and/or minimum Field lengths; determine if the SUT allows the minimum specified by EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- CPR only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create a CPR transaction.

Test Procedure 1302 – CPR Special Input 1

This procedure creates a CPR file to evaluate the following:

- Determines if unacceptable characters are allowed by system (e.g., Attempt to enter Alpha characters in a Field that only allows numeric characters, etc);
- Determines if Fields with restrictions (e.g. Only a period is allowed for special character, etc) enforces restriction;
- Verifies drop down lists (Or Equivalent) only have valid options;
- Verifies that user is not able to input invalid data on Fields that have drop-down lists (Or Equivalent);
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- Checks to see that Fields not populated by the BIMA test engineer were either auto-populated correctly or defaulted correctly;
- EFT file verification; check EFT file against EBTS V 1.2 Verification File;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);

- CPR only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create a CPR transaction.

Test Procedure 1306 – CPR Required Optional

This procedure creates a CPR file to evaluate the following:

- Determines if SUT requires Fields designated as Mandatory by the EBTS V 1.2;
- Verifies that the data entered by the BIMA test engineer is what is stored in EFT file;
- EFT file verification; check EFT file against EBTS V 1.2;
- Type-1 and Type-2 Records are verified for accuracy and correctness (i.e., Using TransactionEdit and Manual Inspection);
- CPR only uses Type-1 and Type-2 records; Tester will verify that no other records are present.

This procedure should be conducted for every SUT that has the ability to create a CPR transaction.

6.15. Critical Issue Verification Procedure

BIMA Test Engineers shall verify that the SUT meets criteria for all applicable Critical Issues identified in Appendix L: .

Table 6-2: Transaction Record Requirements

STEP	INSTRUCTIONS	EXPECTED OUTPUT	NOTE
1	Locate Appendix L: of this document	Appendix is located.	
2	Copy and paste table into Test Report for the SUT.	Table is pasted into Test Report document.	
3	Read each Critical Issue	Each Critical Issue has been read.	
4	Assess the SUT's ability to meet the criteria required for each Critical Issue using results from completed test procedures.	Analysis of critical issue compliance/ability is completed.	
5	Record results in the Pass/Fail/Not Applicable column.	Record of failed Critical Issues	Some Critical Issues may not apply to every SUT

6.16. Reporting

Testing progress and results shall be reporting using the following formats:

- Emerging Results Report (ERR) containing detailed descriptions of all testing activities conducted on each day of the test event. Completed ERRs shall contain detailed descriptions of all DoD EBTS V1.2 conformance issues as well as functionality issues such as error messages encountered during the test event.

- Memorandum of testing activities containing brief descriptions of all DoD EBTS V1.2 conformance issues as well as functionality issues identified during the test event.

- Test Report of testing activities containing descriptions of all DoD EBTS V1.2 conformance issues, test procedure results, and analysis of all collected data and observations.

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APPENDIX A: ACRONYMS AND ABBREVIATIONS

ABIS   Automated Biometric Identification System

ANSI   American National Standards Institute

AR   Army Regulation

BIMA   Biometrics Identity Management Activity

CJIS   Criminal Justice Information Services Division

COTS   Commercial-Off-The-Shelf

DoD   Department of Defense

DoDD   Department of Defense Directive

EBTS   Electronic Biometric Transmission Specification

EFT   Electronic Fingerprint Transmission

EFTS   Electronic Fingerprint Transmission Specification

EIA   Electronic Industries Alliance

ERR   Emerging Results Report

FBI   Federal Bureau of Investigation

GOTS   Government-Off-The-Shelf

ID   Identification

IEEE   Institute of Electrical and Electronics Engineers

ISO   International Standards Organization

IT   Information Technology

ITL   Information Technology Laboratory

NCIC   National Crime Information Center

NIST   National Institute of Standards & Technology

NSS   National Security Systems

NVLAP   National Voluntary Laboratory Accreditation Program

MEB   Metrics and Evaluation Branch

QA   Quality Assurance

QMSP	Quality Management System Procedure
SECARMY	Secretary of the Army
SDK	Software Development Kit
SMT	Scars/Marks/Tattoos
SOP	Standard Operational Procedure
SUT	System Under Test
TCN	Transaction Control Number
TOT	Type of Transaction
TP	Test Procedure
V	Version

APPENDIX B: TRANSACTION RECORD REQUIREMENTS

Test procedures shall verify that the SUT builds DoD EBTS 1.2 TOTs with the correct number of instances/occurrences for each record and does not create unsupported records. This is accomplished through a combination of several test procedures. DoD EBTS 1.2 TOT record requirements are detailed in the table below.

Table B-1: Transaction Record Requirements

TOT	TYPE-1	TYPE-2	TYPE-4	TYPE-7	TYPE-9	TYPE-10	TYPE-13	TYPE-14	TYPE-16
CAR	1	1	$0-14*$	-	-	$0-5$	-	$0-14**$	$0-6$
DEK	1	1	$0-14*$	-	-	$0-5$	-	$0-14**$	$0-6$
DEU	1	1	$0-14*$	-	-	$0-5$	-	$0-14**$	$0-6$
MAP	1	1	$0-14*$	-	-	$0-5$	-	$0-14**$	$0-6-$
FANC	1	1	$0-14*$	-	-	$0-5$	-	$0-14**$	$0-6$
VER	1	1	$1-14$	$0-10$	-	-	-	-	-
LFFS	1	$1-2$	$0-10$	$0-10$	$1-10$	-	$0-10$	$0-10$	-
LFIS	1	$1-2$	$0-10$	-	-	-	$0-10$	$0-10$	-
TPRS	1	1	$2-10$	-	$0-10$	-	-	-	-
DPRS	1	1	$0-14$	-	$0-14$	$0-5$	-	$0-14$	$0-6$
*NOTE: IRQ and CPR require one Type-1 record and one Type-2 record									

Notations for the above table are:

- A single asterisk (*) indicates that less than 14 images are acceptable for this transaction only in the case of amputation, deformity, or bandage. If less than 14 images are present due to one or more of these reasons, this shall be indicated in the Type-2 record (field 2.084) as defined in the EFTS.
- Double asterisks (**) indicate that this field shall contain 1,000-ppi fingerprint images if available.

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APPENDIX C: TYPE-1 RECORD REQUIREMENTS

This appendix describes the Type-1 fields as specified in EBTS 1.2 and EFTS 7.0.

The figure below shows the EBTS accepted format for the TCN (1.009).

Figure C-1: EBTS TCN Layout

The tables below contain the following:

- Field Number – Number assigned to that field.
- Mnemonic – This is the short identifier assigned to the field.
- M/O (Mandatory/Optional) – This contains an M for Mandatory and O for Optional; Mandatory field are required.
- Description: Long description for the field.
- Type: This will contain A for Alpha, N for Numeric or S for Special Characters or a combination of the three. This designates what type of data is allowed for that field.
- Occ. (Occurrences): This lists the number of occurrences allowed for that field. For example, Date of Birth (2.022) allows 1-5 occurrences which means a minimum of one DOB must be listed and a maximum of five DOBs may be listed.
- Min. Len. (Minimum Length): Minimum length of characters/data required.
- Max. Len. (Maximum Length): Maximum length of characters/data required.
- Accepted Codes/Characters: For fields that allow special characters (will contain an 'S' under Type), this states which special characters are allowed or which are not allowed.
- Special Conditions/Restrictions: This states if the field has any special conditions associated with it. For example, DOB (2.022) shall not exceed date of submission after Time-Zone adjustment.

Table C-1: CAR, DEK, DEU, FANC, IRQ, MAP, TPRS, and DPRS Transaction Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
1.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	3		
1.002	VER	M	VERSION NUMBER	N	1	4	4		
1.003	CNT	M	FILE CONTENT	N	1	9	48		
1.004	TOT	M	TYPE OF TRANSACTION	A	1	3	5		
1.005	DAT	M	DATE	N	1	8	8		YYYYMMDD format.
1.006	PRY	O	PRIORITY	N	1	1	1		
1.007	DAI	M	DESTINATION AGENCY IDENTIFIER	AN	1	9	9		
1.008	ORI	M	ORIGINATING AGENCY IDENTIFIER	AN	1	9	9		
1.009	TCN	M	TRANSACTION CONTROL NUMBER	ANS	1	40	40	Any printable ASCII 7-Bit	See Figure B-1 above. *EFTS 7.0 states that a TCN can be 10-40 characters; however, EBTS 1.2 mandates 40 characters in format shown in Figure B-1 above.
1.010	TCR	O	TRANSACTION CONTROL REFERENCE	ANS	1	40	40	Any printable ASCII 7-Bit	
1.011	NSR	M	NATIVE SCANNING RESOLUTION	NS	1	5	5	Period	Shall be expressed as two numeric digits followed by a decimal point and two more numeric characters (e.g., 19.99)
1.012	NTR	M	NOMINAL TRANSMITTING RESOLUTION	NS	1	5	5	Period	Shall be expressed as two numeric digits followed by a decimal point and two more numeric characters (e.g., 19.99)
1.013	DOM	M	DOMAIN NAME	ANS	1	2	20	Any printable ASCII 7-Bit	
1.013_1	DOM_IMP	M	DOMAIN NAME IMPLEMENTATION	ANS	1	1	15	Any printable ASCII 7-Bit	
1.013_2	DOM_VER	M	DOMAIN NAME IMPLEMENTATION VERSION	ANS	1	1	5	Any printable ASCII 7-Bit	

Table C-2: LFIS and LFFS Transaction Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
1.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	3		
1.002	VER	M	VERSION NUMBER	N	1	4	4		
1.003	CNT	M	FILE CONTENT	N	1	9	48		
1.004	TOT	M	TYPE OF TRANSACTION	A	1	3	5		
1.005	DAT	M	DATE	N	1	8	8		
1.006	PRY	M	PRIORITY	N	1	1	1		
1.007	DAI	M	DESTINATION AGENCY IDENTIFIER	AN	1	9	9		
1.008	ORI	M	ORIGINATING AGENCY IDENTIFIER	AN	1	9	9		
1.009	TCN	M	TRANSACTION CONTROL NUMBER	ANS	1	40	40	Any printable ASCII 7-Bit	See Figure B-1 above. *EFTS 7.0 states that a TCN can be 10-40 characters; however, EBTS 1.2 mandates 40 characters in format shown in Figure B-1 above.
1.010	TCR	O	TRANSACTION CONTROL REFERENCE	ANS	1	40	40	Any printable ASCII 7-Bit	
1.011	NSR	M	NATIVE SCANNING RESOLUTION	NS	1	5	5	Period	Shall be expressed as two numeric digits followed by a decimal point and two more numeric characters (e.g., 19.99)
1.012	NTR	M	NOMINAL TRANSMITTING RESOLUTION	NS	1	5	5	Period	Shall be expressed as two numeric digits followed by a decimal point and two more numeric characters (e.g., 19.99)
1.013	DOM	O	DOMAIN NAME	ANS	1	2	20	Any printable ASCII 7-Bit	
1.013_1	DOM_IMP	O	DOMAIN NAME IMPLEMENTATION	ANS	1	1	15	Any printable ASCII 7-Bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
1.013_2	DOM_VER	O	DOMAIN NAME IMPLEMENTATION VERSION	ANS	1	1	5	Any printable ASCII 7-Bit	

Table C-3: CRP and VER Transaction Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
1.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	3		
1.002	VER	M	VERSION NUMBER	N	1	4	4		
1.003	CNT	M	FILE CONTENT	N	1	9	48		
1.004	TOT	M	TYPE OF TRANSACTION	A	1	3	5		
1.005	DAT	M	DATE	N	1	8	8		
1.006	PRY	M	PRIORITY	N	1	1	1		
1.007	DAI	M	DESTINATION AGENCY IDENTIFIER	AN	1	9	9		
1.008	ORI	M	ORIGINATING AGENCY IDENTIFIER	AN	1	9	9		
1.009	TCN	M	TRANSACTION CONTROL NUMBER	ANS	1	40	40	Any printable ASCII 7-Bit	See Figure B-1 above. *EFTS 7.0 states that a TCN can be 10-40 characters; however, EBTS 1.2 mandates 40 characters in format shown in Figure B-1 above.
1.010	TCR	O	TRANSACTION CONTROL REFERENCE	ANS	1	40	40	Any printable ASCII 7-Bit	
1.011	NSR	M	NATIVE SCANNING RESOLUTION	NS	1	5	5	Period	Shall be expressed as two numeric digits followed by a decimal point and two more numeric characters (e.g., 19.99)
1.012	NTR	M	NOMINAL TRANSMITTING RESOLUTION	NS	1	5	5	Period	Shall be expressed as two numeric digits followed by a decimal point and two more numeric characters (e.g., 19.99)

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APPENDIX D: TYPE-2 RECORD REQUIREMENTS

This appendix contains information pertaining to Type-2 records. This information is used to verify the data contained within Type-2 records. The following table specifies how full names should be stored.

Table D-1: Full Name Field Restrictions

FIELD	EXPECTED VALUE
Full Name Fields (2.018 T2_NAM and 2.019 T2_AKA)	Surname followed by comma followed by the given name separated by a space followed by middle name (if applicable). Example: Surname, Given Middle

The table below lists default values for those Type-2 fields that have default values (the value to be used when one is not given).

Table D-2: Default Data Values

FIELD	DEFAULT VALUE
2.020 T2_POB	XX
2.022 T2_DOB	00000000
2.024 T2_SEX	X
2.025 T2_RAC	U
2.027 T2_HGT	000
2.029 T2_WGT	000
2.031 T2_EYE	XXX
2.032 T2_HAI	XXX

The following table list special data field limits pertaining to certain fields. For example, a valid weight range is 0 to 499 pounds only.

Table D-3: Special Data Field Limits

FIELD	DESCRIPTION	MINIMUM	MAXIMUM
Date Fields (CCYYMMDD): 1.05, 1.10, 2.045, 2.022, 2.038, 2.047, and 2.051	Century (CC)	19	20
	Year (YY)	00	99
	Month (MM)	01	12
	Day (DD)	01	Defined by the Month and Year
2.027 T2_HGT	Height (feet)	400	711
	Height (inches)	N48	N95
2.028 T2_HTR	Height Range	400	711
2.029 T2_WGT	Weight	0	499
2.030 T2_WTR	Weight Range	050	499

The tables below contain Type-2 information for each TOT allowed by EBTS 1.2. Each table contains the following:

- Field Number – Number assigned to that field.
- Mnemonic – This is the short identifier assigned to the field.
- M/O (Mandatory/Optional) – This contains an M for Mandatory and O for Optional; Mandatory field are required.
- Description: Long description for the field.
- Type: This will contain A for Alpha, N for Numeric or S for Special Characters or a combination of the three. This designates what type of data is allowed for that field.
- Occ. (Occurrences): This lists the number of occurrences allowed for that field. For example, Date of Birth (2.022) allows 1-5 occurrences which means a minimum of one DOB must be listed and a maximum of five DOBs may be listed.
- Min. Len. (Minimum Length): Minimum length of characters/data required.
- Max. Len. (Maximum Length): Maximum length of characters/data required.

- Accepted Codes/Characters: For fields that allow special characters (will contain an 'S' under Type), this states which special characters are allowed or which are not allowed.
- Special Conditions/Restrictions: This states if the field has any special conditions associated with it. For example, DOB (2.022) shall not exceed date of submission after Time-Zone adjustment.

Table D-4: CAR Type-2 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED CODES/ CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.005	RET	M	RETENTION CODE	A	1	1	1		
2.006	ATN	O	ATTENTION INDICATOR	ANS	0-1	3	30	Any printable ASCII 7-bit, except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	0-1	1	20	Any printable ASCII 7-bit, except period (.)	
2.014	FBI	O	FBI NUMBER	AN	0-5	1	9		
2.015	SID	O	STATE IDENTIFICATION NUMBER	ANS	0-1	3	10	NY, OR and PA may use a hyphen in the last position	
2.016	SOC	O	SOCIAL SECURITY ACCOUNT NUMBER	N	0-4	9	9		
2.017	MNU	O	MISCELLANEOUS IDENTIFICATION NUMBER	ANS	0-4	4	15	Hyphen allowed	
2.018	NAM	M	NAME	AS	1	3	30	Commas, hyphens and blanks	
2.019	AKA	O	ALIASES	AS	0-10	3	30	Commas, hyphens and blanks	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED CODES/ CHARACTERS	SPECIAL CONDITIONS
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.021	CTZ	O	COUNTRY OF CITIZENSHIP	A	0-1	2	2		
2.022	DOB	M	DATE OF BIRTH	N	1-5	8	8		DOB shall not exceed date of submission after Time-Zone adjustment.
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	M	RACE	A	1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	0-10	3	10	Blanks allowed	
2.027	HGT	M	HEIGHT	AN	1	3	3		
2.029	WGT	M	WEIGHT	N	1	3	3		
2.031	EYE	M	COLOR EYES	A	1	3	3		
2.032	HAI	M	HAIR COLOR	A	1	3	3		
2.035	PPA	O	PALM PRINTS AVAILABLE INDICATOR	A	0-1	1	1		
2.036	PHT	O	PHOTO AVAILABLE INDICATOR	A	0-1	1	1		
2.039	EAD	O	EMPLOYER AND ADDRESS	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.040	OCP	O	OCCUPATION	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.045	DOA	M	DATE OF ARREST	N	1	8	8		
2.047	ASL	M	ARREST SEGMENT LITERAL	Set	1-40				
2.047A	ASL_DOO	O	DATE OF OFFENSE	N		8	8		
2.047B	ASL_AOL	M	ARREST OFFENSE LITERAL	ANS		1	300	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED CODES/ CHARACTERS	SPECIAL CONDITIONS
2.051	CSL	O*	COURT SEGMENT LITERAL	Set	0-40				*Must be included if submission includes SLE (2.055).
2.051A	CSL_CDD	O	COURT DISPOSITION DATE	N		8	8		
2.051B	CSL_COL	M	COURT OFFENSE LITERAL	ANS		1	300	Any printable ASCII 7-bit	
2.051C	CSL_CPL	M	OTHER COURT SENTENCE PROVISION LITERAL	ANS		1	300	Any printable ASCII 7-bit	
2.054	SSD	O	CUSTODY OR SUPERVISORY STATUS - START DATE	N	0-1	8	8		
2.055	SLE	O	CUSTODY OR SUPERVISORY STATUS LITERAL	ANS	0-1	1	300	Any printable ASCII 7-bit	
2.056	ICO	O	IDENTIFICATION COMMENTS	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.067	IMA	O	IMAGE CAPTURE EQUIPMENT	Set	0-1				
2.067A	IMA_MAK	M	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	M	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	
2.067C	IMA_SERNO	O	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.070	RAP	O	REQUEST FOR ELECTRONIC RAP SHEET	A	0-1	1	1		
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	1-3	1	9		
2.084	AMP	C*	AMPUTATED OR BANDAGED	Set	0-9			Check Type 4/14 record	*Required if not all ten fingers are able to be captured (due to amputation or unable to print).
2.084A	AMP_FGP	M	FINGER NUMBER	N		2	2		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED CODES/ CHARACTERS	SPECIAL CONDITIONS
2.084B	AMP_AMPCD	M	AMPUTATED OR BANDAGED CODE	A		2	2		
2.087	TAA	O	TREAT AS ADULT	A	0-1	1	1		
2.088	NOT	O	NOTE FIELD	ANS	0-1	1	1000	Any printable ASCII 7-bit	
2.300	GUID	O	BAT GLOBAL UNIQUE IDENTIFIER	ANS	0-10	36	38	Any printable ASCII 7-bit	
2.301	BLO	O	LOCATION	ANS	0-1	1	255	Any printable ASCII 7-bit	
2.302	ISN	M	INTERNMENT SERIAL NUMBER	ANS	1	13	16	Any printable ASCII 7-bit	
2.303	DOD_NO	O	DOD NUMBER	AN	0-5	1	9		
2.304	PAS	O	PASSPORT INFORMATION	Set	0-5				
2.304_1	PAS_DATEISSUE	M	PASSPORT DATE ISSUED	N	1	8	8		Date format is YYYYMMDD
2.304_2	PAS_DATEEXP	M	PASSPORT DATE EXPIRES	N	1	8	8		Date format is YYYYMMDD
2.304_3	PAS_NUMBER	M	PASSPORT NUMBER	ANS	1	1	80	Any printable ASCII 7-bit	
2.304_4	PAS_COUNTRY	M	COUNTRY OF PASSPORT ISSUANCE	A	1	2	2		Valid two-letter NCIC country code
2.304_5	PAS_LOC	M	LOCATION OF PASSPORT ISSUANCE	ANS	1	1	80	Any printable ASCII 7-bit	
2.306	GEO_CORD	O	GEOGRAPHIC COORDINATE LATITUDE/LONGITUDE	Set	0-1				
2.306_1	GEO_CORD_LAT_DEG	M	LATITUDE DEGREE	NS	1	1	9	Period, plus sign, hyphen	
2.306_2	GEO_CORD_LAT_MIN	O	LATITUDE MINUTE	NS	0-1	1	8	Period	If decimal value is used here, Latitude Second shall not be used.
2.306_3	GEO_CORD_LAT_SEC	O	LATITUDE SECOND	NS	0-1	1	8	Period	If decimal value is used in Latitude Minute, this field should not be used.
2.306_4	GEO_CORD_LONG_DEG	M	LONGITUDE DEGREE	NS	1	1	10	Period, plus, hyphen	
2.306_5	GEO_CORD_LONG_MIN	O	LONGITUDE MINUTE	NS	0-1	1	8	Period	If decimal value is used here, Longitude Second shall not be used.

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED CODES/ CHARACTERS	SPECIAL CONDITIONS
2.306_6	GEO_CORD_LONG_SEC	O	LONGITUDE SECOND	NS	0-1	1	8	Period	If decimal value is used in Longitude Minute, this field should not be used.
2.307	DATUM_ID	O	GEOGRAPHIC COORDINATE DATUM ID	AN	0-1	3	6		
2.308	EDI	O	ELECTRONIC DATA INTERCHANGE PERSONAL IDENTIFIER	N	0-1	10	20		
2.309	DBIDS	O	DEFENSE BIOMETRIC IDENTIFICATION SYSTEM (DBIDS) ID	ANS	0-1	10	50	Any printable ASCII 7-bit	
2.310	PER_TYPE	M	PERSONNEL TYPE	AS	1	3	50		
2.311	NAM1	O	NAME-ONE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.312	NAM2	O	NAME-TWO	AS	0-1	1	50	Any printable ASCII 7-bit	
2.313	NAM3	O	NAME-THREE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.314	NAM4	O	NAME-FOUR	AS	0-1	1	50	Any printable ASCII 7-bit	
2.317	RIS	O	REQUEST IAFIS SEARCH	A	0-1	1	1		
2.321	CORD_OTHER	O	GEOGRAPHIC COORDINATE - OTHER	Set	0-1				
2.321_1	CORD_OTHER_ID	M	COORDINATE SYSTEM ID	A	1	4	6		
2.321_2	CORD_OTHER_VALUE	M	COORDINATE VALUE	AN	1	3	17		
2.322	CORD_UTM	O	GEOGRAPHIC COORDINATE UTM	Set	0-1				
2.322_1	CORD_UTM_ZONE	M	ZONE	AN	1	2	3		
2.322_2	CORD_UTM_NORTHING	M	NORTHING	N	1	1	8		
2.322_3	CORD_UTM_EASTING	M	EASTING	N	1	1	6		
2.323	FATHER_NAME	O	FATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.324	MOTHER_NAME	O	MOTHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED CODES/ CHARACTERS	SPECIAL CONDITIONS
2.325	MAT_FATHER_NAME	O	MATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.326	PAT_FATHER_NAME	O	PATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.327	SPOUSE_NAME	O	SPOUSE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.328	CHILD_NAME	O	CHILD'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.329	BROTHER_NAME	O	BROTHER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.330	SISTER_NAME	O	SISTER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.331	ASSOCIATES_NAME	O	ASSOCIATE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.332	AGE	O	AGE	N	0-1	1	3		
2.333	NAT	O	NATIONALITY	AS	0-1	1	50	dash, space, and comma	
2.334	SCC	O	SUBMISSION COLOR CODE	A	0-1	1	3		
2.335	DOSSIER	O	DOSSIER NUMBER	ANS	0-10	1	50	Any printable ASCII 7-bit	
2.336	IRS	O	IRIS IMAGES PRESENT	A	0-1	1	2		
2.337	RELIGION	O	RELIGION	AS	0-1	1	50	Blank, comma, slash, and dash	
2.350	ALERT	O	ALERT	Set	0-1				
2.350_1	ALERT_FUN	M	ALERT FUNCTION	N	1	1	1		
2.350_2	ALERT_CAT	M	ALERT CATEGORY	N	1	1	1		
2.350_3	ALERT_VAL	M	ALERT VALUE	N	1	1	1		
2.350_4	ALERT_CONTACT	M	ALERT CONTACT	ANS	1	1	80	Any printable ASCII 7-bit	
2.350_5	ALERT_DETAIL	M	ALERT DETAIL	ANS	1	1	255	Any printable ASCII 7-bit	
2.351	EP	O	ENCOUNTER PROTECTION	Set	0-1				

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED CODES/ CHARACTERS	SPECIAL CONDITIONS
2.351_1	EP_FUN	M	ENCOUNTER PROTECTION FUNCTION	N	1	1	1		
2.351_2	EP_LEVEL	M	ENCOUNTER PROTECTION LEVEL	N	1	1	1		
2.352	LOOKUP	O	TRANSACTION LOOKUP	Set	0-99				
2.352_1	LOOKUP_TYPE	M	TRANSACTION LOOKUP TYPE	N	1	1	1		
2.352_2	LOOKUP_VAL	M	TRANSACTION LOOKUP IDENTIFIER VALUES	ANS	1	1	100	Any printable ASCII 7-bit	
2.353	SN	O	SUBSEQUENT NOTIFICATION	Set	0-1				
2.353_1	SN_FUN	M	SUBSEQUENT NOTIFICATION FUNCTION	N	1	1	1		
2.353_2	SN_ADDRS	O*	SUBSEQUENT NOTIFICATION EMAIL ADDRESSES	ANS	0-1	1	250	Any printable ASCII 7-bit	*This field is mandatory if Subsequent Notification Function is set to 2.

Table D-5: DEK Type-2 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.005	RET	M	RETENTION CODE	A	1	1	1		
2.006	ATN	O	ATTENTION INDICATOR	ANS	0-1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	0-1	1	20	Any printable ASCII 7-bit, except period (.)	
2.014	FBI	O	FBI NUMBER	AN	0-5	1	9		
2.015	SID	O	STATE IDENTIFICATION NUMBER	ANS	0-1	3	10	NY, OR and PA may use a hyphen in the last position	
2.016	SOC	O	SOCIAL SECURITY ACCOUNT NUMBER	N	0-4	9	9		
2.017	MNU	O	MISCELLANEOUS IDENTIFICATION NUMBER	ANS	0-4	4	15	Hyphen allowed	
2.018	NAM	M	NAME	AS	1	3	30	Commas, hyphens and blanks	
2.019	AKA	O	ALIASES	AS	0-10	3	30	Commas, hyphens and blanks	
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.021	CTZ	O	COUNTRY OF CITIZENSHIP	A	0-1	2	2		
2.022	DOB	M	DATE OF BIRTH	N	1-5	8	8		DOB shall not exceed date of submission after Time-Zone adjustment.
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	M	RACE	A	1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	0-10	3	10	Blanks allowed	
2.027	HGT	M	HEIGHT	AN	1	3	3		
2.029	WGT	M	WEIGHT	N	1	3	3		
2.031	EYE	M	COLOR EYES	A	1	3	3		
2.032	HAI	M	HAIR COLOR	A	1	3	3		
2.038	DPR	M	DATE PRINTED	N	1	8	8		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.039	EAD	O	EMPLOYER AND ADDRESS	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.056	ICO	O	IDENTIFICATION COMMENTS	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.067	IMA	O	IMAGE CAPTURE EQUIPMENT	Set	0-1				
2.067A	IMA_MAK	O	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	O	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	
2.067C	IMA_SERNO	O	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.070	RAP	O	REQUEST FOR ELECTRONIC RAP SHEET	A	0-1	1	1		
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	1-3	1	9		
2.084	AMP	O	AMPUTATED OR BANDAGED	Set	0-10				Check Type 4/14 record
2.084A	AMP_FGP	M	FINGER NUMBER	N		2	2		
2.084B	AMP_AMPCD	M	AMPUTATED OR BANDAGED CODE	A		2	2		
2.303	DOD_NO	O	DOD NUMBER	AN	0-5	1	9		
2.304	PAS	O	PASSPORT INFORMATION	Set	0-5				
2.304_1	PAS_DATEISSUE	M	PASSPORT DATE ISSUED	N	1	8	8		Date format is YYYYMMDD
2.304_2	PAS_DATEEXP	M	PASSPORT DATE EXPIRES	N	1	8	8		Date format is YYYYMMDD
2.304_3	PAS_NUMBER	M	PASSPORT NUMBER	ANS	1	1	80	Any printable ASCII 7-bit	
2.304_4	PAS_COUNTRY	M	COUNTRY OF PASSPORT ISSUANCE	A	1	2	2		Valid two-letter NCIC country code

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.304_5	PAS_LOC	M	LOCATION OF PASSPORT ISSUANCE	ANS	1	1	80	Any printable ASCII 7-bit	
2.306	GEO_CORD	O	GEOGRAPHIC COORDINATE LATITUDE/LONGITUDE	Set	0-1				
2.306_1	GEO_CORD_LAT_DEG	M	LATITUDE DEGREE	NS	1	1	9	Period, plus, hyphen	
2.306_2	GEO_CORD_LAT_MIN	O	LATITUDE MINUTE	NS	0-1	1	8	Period	If this contains a decimal value, Latitude Second should be omitted.
2.306_3	GEO_CORD_LAT_SEC	O	LATITUDE SECOND	NS	0-1	1	8	Period	If Latitude Second contains a decimal value, this field should be omitted.
2.306_4	GEO_CORD_LONG_DEG	M	LONGITUDE DEGREE	NS	1	1	10	Period, plus, hyphen	
2.306_5	GEO_CORD_LONG_MIN	O	LONGITUDE MINUTE	NS	0-1	1	8	Period	If this contains a decimal value, Longitude Second should be omitted.
2.306_6	GEO_CORD_LONG_SEC	O	LONGITUDE SECOND	NS	0-1	1	8	Period	If Longitude Second contains a decimal value, this field should be omitted.
2.307	DATUM_ID	O	GEOGRAPHIC COORDINATE DATUM ID	AN	0-1	3	6		
2.308	EDI	O	ELECTRONIC DATA INTERCHANGE PERSONAL IDENTIFIER	N	0-1	10	20		
2.309	DBIDS	O	DEFENSE BIOMETRIC IDENTIFICATION SYSTEM (DBIDS) ID	ANS	0-1	10	50	Any printable ASCII 7-bit	
2.310	PER_TYPE	M	PERSONNEL TYPE	AS	1	3	50		
2.311	NAM1	O	NAME-ONE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.312	NAM2	O	NAME-TWO	AS	0-1	1	50	Any printable ASCII 7-bit	
2.313	NAM3	O	NAME-THREE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.314	NAM4	O	NAME-FOUR	AS	0-1	1	50	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.317	RIS	O	REQUEST IAFIS SEARCH	A	0-1	1	1		
2.321	CORD_OTHER	O	GEOGRAPHIC COORDINATE - OTHER	Set	0-1				
2.321_1	CORD_OTHER_ID	M	COORDINATE SYSTEM ID	A	1	4	6		
2.321_2	CORD_OTHER_VALUE	M	COORDINATE VALUE	AN	1	3	17		
2.322	CORD_UTM	O	GEOGRAPHIC COORDINATE UTM	Set	0-1				
2.322_1	CORD_UTM_ZONE	M	ZONE	AN	1	2	3		
2.322_2	CORD_UTM_NORTHING	M	NORTHING	N	1	1	8		
2.322_3	CORD_UTM_EASTING	M	EASTING	N	1	1	6		

Table D-6: DEU Type-2 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.005	RET	M	RETENTION CODE	A	1	1	1		
2.006	ATN	O	ATTENTION INDICATOR	ANS	0-1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	0-1	1	20	Any printable ASCII 7-bit, except period (.)	
2.014	FBI	O	FBI NUMBER	AN	0-5	1	9		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.017	MNU	O	MISCELLANEOUS IDENTIFICATION NUMBER	ANS	0-4	4	15	Hyphen allowed	
2.018	NAM	M	NAME	AS	1	3	30	Commas, hyphens and blanks	
2.021	CTZ	O	COUNTRY OF CITIZENSHIP	A	0-1	2	2		
2.022	DOB	M	DATE OF BIRTH	N	1-5	8	8		DOB shall not exceed date of submission after Time-Zone adjustment.
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	M	RACE	A	1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	0-10	3	10	Blanks allowed	
2.027	HGT	M	HEIGHT	AN	1	3	3		
2.029	WGT	M	WEIGHT	N	1	3	3		
2.031	EYE	M	COLOR EYES	A	1	3	3		
2.032	HAI	M	HAIR COLOR	A	1	3	3		
2.038	DPR	M	DATE PRINTED	N	1	8	8		
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.048	CSR	O	CIVIL SEARCH REQUESTED INDICATOR	A	0-1	1	1		
2.056	ICO	O	IDENTIFICATION COMMENTS	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.067	IMA	O	IMAGE CAPTURE EQUIPMENT	Set	0-1				
2.067A	IMA_MAK	O	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	O	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.067C	IMA_SERNO	O	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.070	RAP	O	REQUEST FOR ELECTRONIC RAP SHEET	A	0-1	1	1		
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	1-3	1	9		
2.084	AMP	O	AMPUTATED OR BANDAGED	Set	0-10				Check Type 4/14 record
2.084A	AMP_FGP	M	FINGER NUMBER	N		2	2		
2.084B	AMP_AMPCD	M	AMPUTATED OR BANDAGED CODE	A		2	2		
2.303	DOD_NO	O	DOD NUMBER	AN	0-5	1	9		
2.310	PER_TYPE	M	PERSONNEL TYPE	AS	1	3	50		
2.317	RIS	O	REQUEST IAFIS SEARCH	A	0-1	1	1		

Table D-7: FANC Type-2 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.005	RET	M	RETENTION CODE	A	1	1	1		
2.006	ATN	O	ATTENTION INDICATOR	ANS	1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	9	9	19	Any printable ASCII 7-bit	
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	1	1	20	Any printable ASCII 7-bit, except period (.)	

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FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.014	FBI	O	FBI NUMBER	AN	5	1	9		
2.016	SOC	O	SOCIAL SECURITY ACCOUNT NUMBER	N	4	9	9		
2.017	MNU	O	MISCELLANEOUS IDENTIFICATION NUMBER	ANS	4	4	15	Hyphen allowed	
2.018	NAM	M	NAME	AS	1	3	30	Commas, hyphens and blanks	
2.019	AKA	O	ALIASES	AS	10	3	30	Commas, hyphens and blanks	
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.021	CTZ	O	COUNTRY OF CITIZENSHIP	A	1	2	2		
2.022	DOB	M	DATE OF BIRTH	N	5	8	8		DOB shall not exceed date of submission after Time-Zone adjustment
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	M	RACE	A	1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	10	3	10	Blanks allowed	
2.027	HGT	M	HEIGHT	AN	1	3	3		
2.029	WGT	M	WEIGHT	N	1	3	3		
2.031	EYE	M	COLOR EYES	A	1	3	3		
2.032	HAI	M	HAIR COLOR	A	1	3	3		
2.037	RFP	M	REASON FINGERPRINTED	ANS	1	1	75	Commas, blanks, dashes, hyphens, and slashes allowed.	
2.038	DPR	M	DATE PRINTED	N	1	8	8		
2.039	EAD	O	EMPLOYER AND ADDRESS	ANS	1	1	120	Any printable ASCII 7-bit	
2.040	OCP	O	OCCUPATION	ANS	1	1	50	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	1	1	120	Any printable ASCII 7-bit	
2.042	MIL	O	MILITARY CODE	A	1	1	1		
2.067	IMA	O	IMAGE CAPTURE EQUIPMENT	Set	1				
2.067A	IMA_MAK	O	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	O	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	
2.067C	IMA_SERNO	O	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.070	RAP	O	REQUEST FOR ELECTRONIC RAP SHEET	A	1	1	1		
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	3	1	9		
2.084	AMP	O	AMPUTATED OR BANDAGED	Set	10			Check Type 4/14 record	
2.084A	AMP_FGP	M	FINGER NUMBER	N		2	2		
2.084B	AMP_AMPCD	M	AMPUTATED OR BANDAGED CODE	A		2	2		
2.088	NOT	O	NOTE FIELD	ANS	1	1	1000	Any printable ASCII 7-bit	
2.300	GUID	O	BAT GLOBAL UNIQUE IDENTIFIER	ANS	10	36	38	Any printable ASCII 7-bit	
2.301	BLO	O	LOCATION	ANS	1	1	255	Any printable ASCII 7-bit	
2.303	DOD_NO	O	DOD NUMBER	AN	5	1	9		
2.304	PAS	O	PASSPORT INFORMATION	Set	5				
2.304_1	PAS_DATEISSUE	M	PASSPORT DATE ISSUED	N	1	8	8		Date format is YYYYMMDD
2.304_2	PAS_DATEEXP	M	PASSPORT DATE EXPIRES	N	1	8	8		Date format is YYYYMMDD

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.304_3	PAS_NUMBER	M	PASSPORT NUMBER	ANS	1	1	80	Any printable ASCII 7-bit	
2.304_4	PAS_COUNTRY	M	COUNTRY OF PASSPORT ISSUANCE	A	1	2	2		Valid two-letter NCIC country code
2.304_5	PAS_LOC	M	LOCATION OF PASSPORT ISSUANCE	ANS	1	1	80	Any printable ASCII 7-bit	
2.306	GEO_CORD	O	GEOGRAPHIC COORDINATE LATITUDE/LONGITUDE	Set	1				
2.306_1	GEO_CORD_LAT_DEG	M	LATITUDE DEGREE	NS	1	1	9	Period, plus, hyphen	
2.306_2	GEO_CORD_LAT_MIN	O	LATITUDE MINUTE	NS	1	1	8	Period	
2.306_3	GEO_CORD_LAT_SEC	O	LATITUDE SECOND	NS	1	1	8	Period	
2.306_4	GEO_CORD_LONG_DEG	M	LONGITUDE DEGREE	NS	1	1	10	Period, plus, hyphen	
2.306_5	GEO_CORD_LONG_MIN	O	LONGITUDE MINUTE	NS	1	1	8	Period	
2.306_6	GEO_CORD_LONG_SEC	O	LONGITUDE SECOND	NS	1	1	8	Period	
2.307	DATUM_ID	O	GEOGRAPHIC COORDINATE DATUM ID	AN	1	3	6		
2.308	EDI	O	ELECTRONIC DATA INTERCHANGE PERSONAL IDENTIFIER	N	1	10	20		
2.309	DBIDS	O	DEFENSE BIOMETRIC IDENTIFICATION SYSTEM (DBIDS) ID	ANS	1	10	50	Any printable ASCII 7-bit	
2.310	PER_TYPE	M	PERSONNEL TYPE	AS	1	3	50		
2.311	NAM1	O	NAME-ONE	AS	1	1	50	Any printable ASCII 7-bit	
2.312	NAM2	O	NAME-TWO	AS	1	1	50	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.313	NAM3	O	NAME-THREE	AS	1	1	50	Any printable ASCII 7-bit	
2.314	NAM4	O	NAME-FOUR	AS	1	1	50	Any printable ASCII 7-bit	
2.317	RIS	O	REQUEST IAFIS SEARCH	A	1	1	1		
2.321	CORD_OTHER	O	GEOGRAPHIC COORDINATE - OTHER	Set	1				
2.321_1	CORD_OTHER_ID	M	COORDINATE SYSTEM ID	A	1	4	6		
2.321_2	CORD_OTHER_VALUE	M	COORDINATE VALUE	AN	1	3	17		
2.322	CORD_UTM	O	GEOGRAPHIC COORDINATE UTM	Set					
2.322_1	CORD_UTM_ZONE	M	ZONE	AN	1	2	3		
2.322_2	CORD_UTM_NORTHING	M	NORTHING	N	1	1	8		
2.322_3	CORD_UTM_EASTING	M	EASTING	N	1	1	6		
2.323	FATHER_NAME	O	FATHER'S NAME	ANS	1	1	80	Any printable ASCII 7-bit	
2.324	MOTHER_NAME	O	MOTHER'S NAME	ANS	1	1	80	Any printable ASCII 7-bit	
2.325	MAT_FATHER_NAME	O	MATERNAL GRANDFATHER'S NAME	ANS	1	1	80	Any printable ASCII 7-bit	
2.326	PAT_FATHER_NAME	O	PATERNAL GRANDFATHER'S NAME	ANS	1	1	80	Any printable ASCII 7-bit	
2.327	SPOUSE_NAME	O	SPOUSE'S NAME	ANS	10	1	80	Any printable ASCII 7-bit	
2.328	CHILD_NAME	O	CHILD'S NAME	ANS	10	1	80	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.329	BROTHER_NAME	O	BROTHER'S NAME	ANS	10	1	80	Any printable ASCII 7-bit	
2.330	SISTER_NAME	O	SISTER'S NAME	ANS	10	1	80	Any printable ASCII 7-bit	
2.331	ASSOCIATES_NAME	O	ASSOCIATE'S NAME	ANS	10	1	80	Any printable ASCII 7-bit	
2.332	AGE	O	AGE	N	1	1	3		
2.333	NAT	O	NATIONALITY	AS	1	1	50	dash, space, and comma	
2.334	SCC	O	SUBMISSION COLOR CODE	A	1	1	1		
2.335	DOSSIER	O	DOSSIER NUMBER	ANS	10	1	50	Any printable ASCII 7-bit	
2.336	IRS	O	IRIS IMAGES PRESENT	A	1	1	2		
2.337	RELIGION	O	RELIGION	AS	1	1	50	Any printable ASCII 7-bit	

Table D-8: MAP Type-2 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	P/F
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.005	RET	M	RETENTION CODE	A	1	1	1		
2.006	ATN	O	ATTENTION INDICATOR	ANS	0-1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	P/F
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	0-1	1	20	Any printable ASCII 7-bit, except period (.)	
2.014	FBI	O	FBI NUMBER	AN	0-5	1	9		
2.015	SID	O	STATE IDENTIFICATION NUMBER	ANS	0-1	3	10		
2.016	SOC	O	SOCIAL SECURITY ACCOUNT NUMBER	N	0-4	9	9		
2.017	MNU	O	MISCELLANEOUS IDENTIFICATION NUMBER	ANS	0-4	4	15	Hyphen allowed	
2.018	NAM	M	NAME	AS	1	3	30	Commas, hyphens and blanks	
2.019	AKA	O	ALIASES	AS	0-10	3	30	Commas, hyphens and blanks	
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.021	CTZ	O	COUNTRY OF CITIZENSHIP	A	0-1	2	2		
2.022	DOB	M	DATE OF BIRTH	N	1-5	8	8		DOB shall not exceed date of submission after Time-Zone adjustment.
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	M	RACE	A	1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	0-10	3	10	Blanks allowed	
2.027	HGT	M	HEIGHT	AN	1	3	3		
2.029	WGT	M	WEIGHT	N	1	3	3		
2.031	EYE	M	COLOR EYES	A	1	3	3		
2.032	HAI	M	HAIR COLOR	A	1	3	3		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	P/F
2.037	RFP	M	REASON FINGERPRINTED	ANS	1	1	75	Commas, blanks, dashes, hyphens, and slashes allowed.	
2.038	DPR	M	DATE PRINTED	N	1	8	8		
2.039	EAD	O	EMPLOYER AND ADDRESS	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.040	OCP	O	OCCUPATION	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.067	IMA	O	IMAGE CAPTURE EQUIPMENT	Set	0-1				
2.067A	IMA_MAK	O	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	O	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	
2.067C	IMA_SERNO	O	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.070	RAP	O	REQUEST FOR ELECTRONIC RAP SHEET	A	0-1	1	1		
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	1-3	1	9		
2.084	AMP	O	AMPUTATED OR BANDAGED	Set	0-10				Check Type 4/14 record
2.084A	AMP_FGP	M	FINGER NUMBER	N	1	2	2		
2.084B	AMP_AMPCD	M	AMPUTATED OR BANDAGED CODE	A	1	2	2		
2.088	NOT	O	NOTE FIELD	ANS	0-1	1	1000	Any printable ASCII 7-bit	
2.300	GUID	O	BAT GLOBAL UNIQUE IDENTIFIER	ANS	0-10	36	38	Any printable ASCII 7-bit	
2.301	BLO	O	LOCATION	ANS	0-1	1	255	Any printable ASCII 7-bit	
2.303	DOD_NO	O	DOD NUMBER	AN	0-5	1	9		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	P/F
2.304	PAS	O	PASSPORT INFORMATION	Set	0-5				
2.304_1	PAS_DATEISSUE	M	PASSPORT DATE ISSUED	N	1	8	8		Date format is YYYYMMDD
2.304_2	PAS_DATEEXP	M	PASSPORT DATE EXPIRES	N	1	8	8		Date format is YYYYMMDD
2.304_3	PAS_NUMBER	M	PASSPORT NUMBER	ANS	1	1	80	Any printable ASCII 7-bit	
2.304_4	PAS_COUNTRY	M	COUNTRY OF PASSPORT ISSUANCE	A	1	2	2		Valid two-letter NCIC country code
2.304_5	PAS_LOC	M	LOCATION OF PASSPORT ISSUANCE	ANS	1	1	80	Any printable ASCII 7-bit	
2.306	GEO_CORD	O	GEOGRAPHIC COORDINATE LATITUDE/LONGITUDE	Set	0-1				
2.306_1	GEO_CORD_LAT_DEG	M	LATITUDE DEGREE	NS	1	1	9	Period, plus, hyphen	
2.306_2	GEO_CORD_LAT_MIN	O	LATITUDE MINUTE	NS	0-1	1	8	Period	If this contains a decimal value, Latitude Second should be omitted.
2.306_3	GEO_CORD_LAT_SEC	O	LATITUDE SECOND	NS	0-1	1	8	Period	If Latitude Second contains a decimal value, this field should be omitted.
2.306_4	GEO_CORD_LONG_DEG	M	LONGITUDE DEGREE	NS	1	1	10	Period, plus, hyphen	
2.306_5	GEO_CORD_LONG_MIN	O	LONGITUDE MINUTE	NS	0-1	1	8	Period	If this contains a decimal value, Longitude Second should be omitted.
2.306_6	GEO_CORD_LONG_SEC	O	LONGITUDE SECOND	NS	0-1	1	8	Period	If Longitude Second contains a decimal value, this field should be omitted.
2.307	DATUM_ID	O	GEOGRAPHIC COORDINATE DATUM ID	AN	0-1	3	6		
2.308	EDI	O	ELECTRONIC DATA INTERCHANGE PERSONAL	N	0-1	10	20		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	P/F
			IDENTIFIER						
2.309	DBIDS	O	DEFENSE BIOMETRIC IDENTIFICATION SYSTEM (DBIDS) ID	ANS	0-1	10	50	Any printable ASCII 7-bit	
2.310	PER_TYPE	M	PERSONNEL TYPE	AS	1	3	50		
2.311	NAM1	O	NAME-ONE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.312	NAM2	O	NAME-TWO	AS	0-1	1	50	Any printable ASCII 7-bit	
2.313	NAM3	O	NAME-THREE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.314	NAM4	O	NAME-FOUR	AS	0-1	1	50	Any printable ASCII 7-bit	
2.317	RIS	O	REQUEST IAFIS SEARCH	A	0-1	1	1		
2.321	CORD_OTHER	O	GEOGRAPHIC COORDINATE - OTHER	Set	0-1				
2.321_1	CORD_OTHER_ID	M	COORDINATE SYSTEM ID	A	1	4	6		
2.321_2	CORD_OTHER_VALUE	M	COORDINATE VALUE	AN	1	3	17		
2.322	CORD_UTM	O	GEOGRAPHIC COORDINATE UTM	Set	0-1				
2.322_1	CORD_UTM_ZONE	M	ZONE	AN	1	2	3		
2.322_2	CORD_UTM_NORTHING	M	NORTHING	N	1	1	8		
2.322_3	CORD_UTM_EASTING	M	EASTING	N	1	1	6		
2.323	FATHER_NAME	O	FATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.324	MOTHER_NAME	O	MOTHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.325	MAT_FATHER_NAME	O	MATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.326	PAT_FATHER_NAME	O	PATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.327	SPOUSE_NAME	O	SPOUSE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	P/F
2.328	CHILD_NAME	O	CHILD'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.329	BROTHER_NAME	O	BROTHER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.330	SISTER_NAME	O	SISTER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.331	ASSOCIATES_NAME	O	ASSOCIATE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.332	AGE	O	AGE	N	0-1	1	3		
2.333	NAT	O	NATIONALITY	AS	0-1	1	50	dash, space, and comma	
2.334	SCC	O	SUBMISSION COLOR CODE	A	0-1	1	3		
2.335	DOSSIER	O	DOSSIER NUMBER	ANS	0-10	1	50	Any printable ASCII 7-bit	
2.336	IRS	O	IRIS IMAGES PRESENT	A	0-1	1	2		
2.337	RELIGION	O	RELIGION	AS	0-1	1	50	Blank, comma, slash, and dash	
2.350	ALERT	O	ALERT	Set	0-1				
2.350_1	ALERT_FUN	M	ALERT FUNCTION	N	1	1	1		
2.350_2	ALERT_CAT	M	ALERT CATEGORY	N	1	1	1		
2.350_3	ALERT_VAL	M	ALERT VALUE	N	1	1	1		
2.350_4	ALERT_CONTACT	M	ALERT CONTACT	ANS	1	1	80	Any printable ASCII 7-bit	
2.350_5	ALERT_DETAIL	M	ALERT DETAIL	ANS	1	1	255	Any printable ASCII 7-bit	
2.351	EP	O	ENCOUNTER PROTECTION	Set	0-1				
2.351_1	EP_FUN	M	ENCOUNTER PROTECTION FUNCTION	N	1	1	1		
2.351_2	EP_LEVEL	M	ENCOUNTER PROTECTION LEVEL	N	1	1	1		
2.352	LOOKUP	O	TRANSACTION LOOKUP	Set	0-99				

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FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	P/F
2.352_1	LOOKUP_TYPE	M	TRANSACTION LOOKUP TYPE	N	1	1	1		
2.352_2	LOOKUP_VAL	O*	TRANSACTION LOOKUP IDENTIFIER VALUES	ANS	0-1	1	100	Any printable ASCII 7-bit	*This is mandatory if Subsequent Notification Function is set to 2.
2.353	SN	O	SUBSEQUENT NOTIFICATION	Set	0-1				
2.353_1	SN_FUN	O	SUBSEQUENT NOTIFICATION FUNCTION	N	0-1	1	1		
2.353_2	SN_ADDRS	O	SUBSEQUENT NOTIFICATION EMAIL ADDRESSES	ANS	0-1	1	250	Any printable ASCII 7-bit	

Table D-9: VER Type-2 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.005	RET	M	RETENTION CODE	A	1	1	1		
2.006	ATN	O	ATTENTION INDICATOR	ANS	0-1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	0-1	1	20	Any printable ASCII 7-bit, except period (.)	
2.018	NAM	M	NAME	AS	1	3	30	Commas, hyphens and blanks	
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.021	CTZ	O	COUNTRY OF CITIZENSHIP	A	0-1	2	2		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.022	DOB	M	DATE OF BIRTH	N	1-5	8	8		DOB shall not exceed date of submission after Time-Zone adjustment.
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	O	RACE	A	0-1	1	1		
2.027	HGT	O	HEIGHT	AN	0-1	3	3		
2.029	WGT	O	WEIGHT	N	0-1	3	3		
2.031	EYE	O	COLOR EYES	A	0-1	3	3		
2.032	HAI	O	HAIR COLOR	A	0-1	3	3		
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.042	MIL	O	MILITARY CODE	A	0-1	1	1		
2.067	IMA	O	IMAGE CAPTURE EQUIPMENT	Set	0-1				
2.067A	IMA_MAK	O	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	O	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	
2.067C	IMA_SERNO	O	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	1-3	1	9		
2.300	GUID	O	BAT GLOBAL UNIQUE IDENTIFIER	ANS	0-10	36	38	Any printable ASCII 7-bit	
2.302	ISN	O	INTERNMENT SERIAL NUMBER	ANS	0-1	13	16	Any printable ASCII 7-bit	
2.306	GEO_CORD	O	GEOGRAPHIC COORDINATE LATITUDE/LONGITUDE	Set	0-1				

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.306_1	GEO_CORD_LAT_DEG	M	LATITUDE DEGREE	NS	1	1	9	Period, plus, hyphen	
2.306_2	GEO_CORD_LAT_MIN	O	LATITUDE MINUTE	NS	0-1	1	8	Period	If this contains a decimal value, Latitude Second should be omitted.
2.306_3	GEO_CORD_LAT_SEC	O	LATITUDE SECOND	NS	0-1	1	8	Period	If Latitude Second contains a decimal value, this field should be omitted.
2.306_4	GEO_CORD_LONG_DEG	M	LONGITUDE DEGREE	NS	1	1	10	Period, plus, hyphen	
2.306_5	GEO_CORD_LONG_MIN	O	LONGITUDE MINUTE	NS	0-1	1	8	Period	If this contains a decimal value, Longitude Second should be omitted.
2.306_6	GEO_CORD_LONG_SEC	O	LONGITUDE SECOND	NS	0-1	1	8	Period	If Longitude Second contains a decimal value, this field should be omitted.
2.307	DATUM_ID	O	GEOGRAPHIC COORDINATE DATUM ID	AN	0-1	3	6		
2.311	NAM1	O	NAME-ONE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.312	NAM2	O	NAME-TWO	AS	0-1	1	50	Any printable ASCII 7-bit	
2.313	NAM3	O	NAME-THREE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.314	NAM4	O	NAME-FOUR	AS	0-1	1	50	Any printable ASCII 7-bit	
2.315	VID	M	VERIFICATION IDENTIFIER	Set	1				
2.315_1	VID_TYPE	M	VERIFICATION IDENTIFIER TYPE	A	1	3	7		
2.315_2	VID_VALUE	M	VERIFICATION IDENTIFIER VALUE	ANS	1	1	50	Any printable ASCII 7-bit	
2.321	CORD_OTHER	O	GEOGRAPHIC COORDINATE - OTHER	Set	0-1				
2.321_1	CORD_OTHER_ID	M	COORDINATE SYSTEM ID	A	1	4	6		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.321_2	CORD_OTHER_VALUE	M	COORDINATE VALUE	AN	1	3	17		
2.322	CORD_UTM	O	GEOGRAPHIC COORDINATE UTM	Set	0-1				
2.322_1	CORD_UTM_ZONE	M	ZONE	AN	1	2	3		
2.322_2	CORD_UTM_NORTHING	M	NORTHING	N	1	1	8		
2.322_3	CORD_UTM_EASTING	M	EASTING	N	1	1	6		
2.332	AGE	O	AGE	N	0-1	1	3		
2.333	NAT	O	NATIONALITY	AS	0-1	1	50	dash, space, and comma	
2.334	SCC	O	SUBMISSION COLOR CODE	A	0-1	1	1		
2.335	DOSSIER	O	DOSSIER NUMBER	ANS	0-10	1	50	Any printable ASCII 7-bit	
2.336	IRS	O	IRIS IMAGES PRESENT	A	0-1	1	2		
2.337	RELIGION	O	RELIGION	AS	0-1	1	50	Blank, comma, slash, and dash	

Table D-10: TPRS Type-2 Field Requirements

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.006	ATN	O	ATTENTION INDICATOR	ANS	0-1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	0-1	1	20	Any printable ASCII 7-bit, except period (.)	
2.024	SEX	M	SEX	A	1	1	1		
2.034	PAT	O	PATTERN LEVEL CLASSIFICATIONS	Set	0-30				
2.034A	PAT_FGP	O	FINGER NUMBER	N		2	2		
2.034B	PAT_CL1	O	PATTERN CLASSIFICATION CODE	A		2	2		
2.039	EAD	O	EMPLOYER AND ADDRESS	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.040	OCP	O	OCCUPATION	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.057	FNR	O	FINGER NUMBER(S) REQUESTED	N	0-13	2	2		
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	1-3	1	9		
2.091	RCD1	O	RIDGE CORE DELTA ONE FOR SUBPATTERN	Set	0-10				
2.091A	FGP	O	FINGER NUMBER	N		2	2		
2.091B	RCN1	O	RIDGE COUNT NUMBER 1	N		1	2		
2.092	RCD2	O	RIDGE CORE DELTA TWO FOR SUBPATTERN	Set	0-10				
2.092A	FGP	O	FINGER NUMBER	N		2	2		
2.092B	RCN2	O	RIDGE COUNT NUMBER 2	N		1	2		
2.304	PAS	O	PASSPORT INFORMATION	Set	0-5				
2.304_1	PAS_DATEISSUE	M	PASSPORT DATE ISSUED	N	1	8	8		Date format is YYYYMMDD
2.304_2	PAS_DATEEXP	M	PASSPORT DATE EXPIRES	N	1	8	8		Date format is YYYYMMDD
2.304_3	PAS_NUMBER	M	PASSPORT NUMBER	ANS	1	1	80	Any printable ASCII 7-bit	

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.304_4	PAS_COUNTRY	M	COUNTRY OF PASSPORT ISSUANCE	A	1	2	2		Valid two-letter NCIC country code
2.304_5	PAS_LOC	M	LOCATION OF PASSPORT ISSUANCE	ANS	1	1	80	Any printable ASCII 7-bit	
2.306	GEO_CORD	O	GEOGRAPHIC COORDINATE LATITUDE/LONGITUDE	Set	0-1				
2.306_1	GEO_CORD_LAT_DEG	M	LATITUDE DEGREE	NS	1	1	9	Period, plus, hyphen	
2.306_2	GEO_CORD_LAT_MIN	O	LATITUDE MINUTE	NS	0-1	1	8	Period	If Latitude Minute contains a decimal value, Latitude Second should be omitted.
2.306_3	GEO_CORD_LAT_SEC	O	LATITUDE SECOND	NS	0-1	1	8	Period	This field should be omitted if Latitude Minute contains a decimal value.
2.306_4	GEO_CORD_LONG_DEG	M	LONGITUDE DEGREE	NS	1	1	10	Period, plus, hyphen	
2.306_5	GEO_CORD_LONG_MIN	O	LONGITUDE MINUTE	NS	0-1	1	8	Period	If Longitude Minute contains a decimal value, Latitude Second should be omitted.
2.306_6	GEO_CORD_LONG_SEC	O	LONGITUDE SECOND	NS	0-1	1	8	Period	This field should be omitted if Longitude Minute contains a decimal value.
2.307	DATUM_ID	O	GEOGRAPHIC COORDINATE DATUM ID	AN	0-1	3	6		
2.310	PER_TYPE	M	PERSONNEL TYPE	AS	1	3	50		
2.317	RIS	O	REQUEST IAFIS SEARCH	A	0-1	1	1		
2.321	CORD_OTHER	O	GEOGRAPHIC COORDINATE - OTHER	Set	0-1				
2.321_1	CORD_OTHER_ID	M	COORDINATE SYSTEM ID	A	1	4	6		
2.321_2	CORD_OTHER_VALUE	M	COORDINATE VALUE	AN	1	3	17		

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.322	CORD_UTM	O	GEOGRAPHIC COORDINATE UTM	Set	0-1				
2.322_1	CORD_UTM_ZONE	M	ZONE	AN	1	2	3		
2.322_2	CORD_UTM_NORTHING	M	NORTHING	N	1	1	8		
2.322_3	CORD_UTM_EASTING	M	EASTING	N	1	1	6		
2.323	FATHER_NAME	O	FATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.324	MOTHER_NAME	O	MOTHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.325	MAT_FATHER_NAME	O	MATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.326	PAT_FATHER_NAME	O	PATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.327	SPOUSE_NAME	O	SPOUSE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.328	CHILD_NAME	O	CHILD'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.329	BROTHER_NAME	O	BROTHER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.330	SISTER_NAME	O	SISTER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.331	ASSOCIATES_NAME	O	ASSOCIATE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.332	AGE	O	AGE	N	0-1	1	3		
2.333	NAT	O	NATIONALITY	AS	0-1	1	50	dash, space, and comma	
2.334	SCC	O	SUBMISSION COLOR CODE	A	0-1	1	3		
2.335	DOSSIER	O	DOSSIER NUMBER	ANS	0-10	1	50	Any printable ASCII 7-bit	
2.336	IRS	O	IRIS IMAGES PRESENT	A	0-1	1	2		
2.337	RELIGION	O	RELIGION	AS	0-1	1	50	Blank, comma, slash, and dash.	
2.350	ALERT	O	ALERT	Set	0-1				
2.350_1	ALERT_FUN	M	ALERT FUNCTION	N	1	1	1		

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TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.350_2	ALERT_CAT	M	ALERT CATEGORY	N	1	1	1		
2.350_3	ALERT_VAL	M	ALERT VALUE	N	1	1	1		
2.350_4	ALERT_CONTACT	M	ALERT CONTACT	ANS	1	1	80	Any printable ASCII 7-bit	
2.350_5	ALERT_DETAIL	M	ALERT DETAIL	ANS	1	1	255	Any printable ASCII 7-bit	
2.351	EP	O	ENCOUNTER PROTECTION	Set	0-1				
2.351_1	EP_FUN	M	ENCOUNTER PROTECTION FUNCTION	N	1	1	1		
2.351_2	EP_LEVEL	M	ENCOUNTER PROTECTION LEVEL	N	1	1	1		
2.352	LOOKUP	O	TRANSACTION LOOKUP	Set	0-99				
2.352_1	LOOKUP_TYPE	M	TRANSACTION LOOKUP TYPE	N	1	1	1		
2.352_2	LOOKUP_VAL	O*	TRANSACTION LOOKUP IDENTIFIER VALUES	ANS	0-1	1	100	Any printable ASCII 7-bit	*Mandatory if Subsequent Notification Function is set to 2
2.353	SN	O	SUBSEQUENT NOTIFICATION	Set	0-1				
2.353_1	SN_FUN	O	SUBSEQUENT NOTIFICATION FUNCTION	N	0-1	1	1		
2.353_2	SN_ADDRS	O	SUBSEQUENT NOTIFICATION EMAIL ADDRESSES	ANS	0-1	1	250	Any printable ASCII 7-bit	

Table D-11: DPRS Type-2 Field Requirements

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		

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TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.005	RET	M	RETENTION CODE	A	1	1	1		
2.006	ATN	O	ATTENTION INDICATOR	ANS	0-1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	
2.009	OCA	O	ORIGINATING AGENCY CASE NUMBER	ANS	0-1	1	20	Any printable ASCII 7-bit, except period (.)	
2.014	FBI	O	FBI NUMBER	AN	0-5	1	9		
2.016	SOC	O	SOCIAL SECURITY ACCOUNT NUMBER	N	0-4	9	9		
2.017	MNU	O	MISCELLANEOUS IDENTIFICATION NUMBER	ANS	0-4	4	15	Hyphen allowed	
2.018	NAM	M	NAME	AS	1	3	30	Commas, hyphens and blanks	
2.019	AKA	O	ALIASES	AS	0-10	3	30	Commas, hyphens and blanks	
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.021	CTZ	O	COUNTRY OF CITIZENSHIP	A	0-1	2	2		
2.022	DOB	M	DATE OF BIRTH	N	1-5	8	8		DOB shall not exceed date of submission after Time-Zone adjustment.
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	O	RACE	A	0-1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	0-10	3	10	Blanks allowed	
2.027	HGT	O	HEIGHT	AN	0-1	3	3		
2.029	WGT	M	WEIGHT	N	1	3	3		
2.031	EYE	M	COLOR EYES	A	1	3	3		

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TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.032	HAI	M	HAIR COLOR	A	1	3	3		
2.034	PAT	O	PATTERN LEVEL CLASSIFICATIONS	Set	0-30				
2.034A	PAT_FGP	O	FINGER NUMBER	N		2	2		
2.034B	PAT_CL1	O	PATTERN CLASSIFICATION CODE	A		2	2		
2.037	RFP	M	REASON FINGERPRINTED	ANS	1	1	75	Commas, blanks, dashes, hyphens, and slashes allowed.	
2.038	DPR	M	DATE PRINTED	N	1	8	8		
2.039	EAD	O	EMPLOYER AND ADDRESS	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.040	OCP	O	OCCUPATION	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.041	RES	O	RESIDENCE OF PERSON FINGERPRINTED	ANS	0-1	1	120	Any printable ASCII 7-bit	
2.056	ICO	O	IDENTIFICATION COMMENTS	ANS	0-1	1	50	Any printable ASCII 7-bit	
2.057	FNR	O	FINGER NUMBER(S) REQUESTED	N	0-13	2	2		
2.067	IMA	O	IMAGE CAPTURE EQUIPMENT	Set	0-1				
2.067A	IMA_MAK	O	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	O	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	
2.067C	IMA_SERNO	O	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.070	RAP	O	REQUEST FOR ELECTRONIC RAP SHEET	A	0-1	1	1		
2.073	CRI	M	CONTROLLING AGENCY IDENTIFIER	ANS	1-3	1	9		
2.088	NOT	O	NOTE FIELD	ANS	0-1	1	1000	Any printable ASCII 7-bit	
2.091	RCD1	O	RIDGE CORE DELTA ONE FOR SUBPATTERN	Set	0-10				
2.091A	FGP	O	FINGER NUMBER	N		2	2		

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.091B	RCN1	O	RIDGE COUNT NUMBER 1	N		1	2		
2.092	RCD2	O	RIDGE CORE DELTA TWO FOR SUBPATTERN	Set	0-10				
2.092A	FGP	O	FINGER NUMBER	N		2	2		
2.092B	RCN2	O	RIDGE COUNT NUMBER 2	N		1	2		
2.300	GUID	O	BAT GLOBAL UNIQUE IDENTIFIER	ANS	0-10	36	38	Any printable ASCII 7-bit	
2.301	BLO	O	LOCATION	ANS	0-1	1	255	Any printable ASCII 7-bit	
2.302	ISN	O	INTERNMENT SERIAL NUMBER	ANS	0-1	13	16	Any printable ASCII 7-bit	
2.303	DOD_NO	O	DOD NUMBER	AN	0-5	1	9		
2.304	PAS	O	PASSPORT INFORMATION	Set	0-5				
2.304_1	PAS_DATEISSUE	M	PASSPORT DATE ISSUED	N	1	8	8		Date format is YYYYMMDD
2.304_2	PAS_DATEEXP	M	PASSPORT DATE EXPIRES	N	1	8	8		Date format is YYYYMMDD
2.304_3	PAS_NUMBER	M	PASSPORT NUMBER	ANS	1	1	80	Any printable ASCII 7-bit	
2.304_4	PAS_COUNTRY	M	COUNTRY OF PASSPORT ISSUANCE	A	1	2	2		Valid two-letter NCIC country code
2.304_5	PAS_LOC	M	LOCATION OF PASSPORT ISSUANCE	ANS	1	1	80	Any printable ASCII 7-bit	
2.306	GEO_CORD	O	GEOGRAPHIC COORDINATE LATITUDE/LONGITUDE	Set	0-1				
2.306_1	GEO_CORD_LAT_DEG	M	LATITUDE DEGREE	NS	1	1	9	Period, plus, hyphen	
2.306_2	GEO_CORD_LAT_MIN	O	LATITUDE MINUTE	NS	0-1	1	8	Period	
2.306_3	GEO_CORD_LAT_SEC	O	LATITUDE SECOND	NS	0-1	1	8	Period	
2.306_4	GEO_CORD_LONG_DEG	M	LONGITUDE DEGREE	NS	1	1	10	Period, plus, hyphen	
2.306_5	GEO_CORD_LONG_MIN	O	LONGITUDE MINUTE	NS	0-1	1	8	Period	

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.306_6	GEO_CORD_LONG_SEC	O	LONGITUDE SECOND	NS	0-1	1	8	Period	
2.307	DATUM_ID	O	GEOGRAPHIC COORDINATE DATUM ID	AN	0-1	3	6		
2.308	EDI	O	ELECTRONIC DATA INTERCHANGE PERSONAL IDENTIFIER	N	0-1	10	20		
2.309	DBIDS	O	DEFENSE BIOMETRIC IDENTIFICATION SYSTEM (DBIDS) ID	ANS	0-1	10	50	Any printable ASCII 7-bit	
2.310	PER_TYPE	M	PERSONNEL TYPE	AS	1	3	50		
2.311	NAM1	O	NAME-ONE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.312	NAM2	O	NAME-TWO	AS	0-1	1	50	Any printable ASCII 7-bit	
2.313	NAM3	O	NAME-THREE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.314	NAM4	O	NAME-FOUR	AS	0-1	1	50	Any printable ASCII 7-bit	
2.317	RIS	O	REQUEST IAFIS SEARCH	A	0-1	1	1		
2.321	CORD_OTHER	O	GEOGRAPHIC COORDINATE - OTHER	Set	0-1				
2.321_1	CORD_OTHER_ID	M	COORDINATE SYSTEM ID	A	1	4	6		
2.321_2	CORD_OTHER_VALUE	M	COORDINATE VALUE	AN	1	3	17		
2.322	CORD_UTM	O	GEOGRAPHIC COORDINATE UTM	Set	0-1				
2.322_1	CORD_UTM_ZONE	M	ZONE	AN	1	2	3		
2.322_2	CORD_UTM_NORTHING	M	NORTHING	N	1	1	8		
2.322_3	CORD_UTM_EASTING	M	EASTING	N	1	1	6		
2.323	FATHER_NAME	O	FATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.324	MOTHER_NAME	O	MOTHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.325	MAT_FATHER_NAME	O	MATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.326	PAT_FATHER_NAME	O	PATERNAL GRANDFATHER'S NAME	ANS	0-1	1	80	Any printable ASCII 7-bit	

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TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.327	SPOUSE_NAME	O	SPOUSE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.328	CHILD_NAME	O	CHILD'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.329	BROTHER_NAME	O	BROTHER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.330	SISTER_NAME	O	SISTER'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.331	ASSOCIATES_NAME	O	ASSOCIATE'S NAME	ANS	0-10	1	80	Any printable ASCII 7-bit	
2.332	AGE	O	AGE	N	0-1	1	3		
2.333	NAT	O	NATIONALITY	AS	0-1	1	50	dash, space, and comma	
2.334	SCC	O	SUBMISSION COLOR CODE	A	0-1	1	3		
2.335	DOSSIER	O	DOSSIER NUMBER	ANS	0-10	1	50	Any printable ASCII 7-bit	
2.336	IRS	O	IRIS IMAGES PRESENT	A	0-1	1	2		
2.337	RELIGION	O	RELIGION	AS	0-1	1	50	Blank, comma, slash, and dash.	
2.350	ALERT	O	ALERT	Set	0-1				
2.350_1	ALERT_FUN	M	ALERT FUNCTION	N	1	1	1		
2.350_2	ALERT_CAT	O*	ALERT CATEGORY	N	0-1	1	1		*Mandatory if Subsequent Notification Function is set to 2.
2.350_3	ALERT_VAL	M	ALERT VALUE	N	0-1	1	1		
2.350_4	ALERT_CONTACT	M	ALERT CONTACT	ANS	0-1	1	80	Any printable ASCII 7-bit	
2.350_5	ALERT_DETAIL	M	ALERT DETAIL	ANS	1	1	255	Any printable ASCII 7-bit	
2.351	EP	O	ENCOUNTER PROTECTION	Set	0-1				
2.351_1	EP_FUN	M	ENCOUNTER PROTECTION FUNCTION	N	1	1	1		
2.351_2	EP_LEVEL	M	ENCOUNTER PROTECTION LEVEL	N	1	1	1		

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.352	LOOKUP	O	TRANSACTION LOOKUP	Set	0-99				
2.352_1	LOOKUP_TYPE	M	TRANSACTION LOOKUP TYPE	N	1	1	1		
2.352_2	LOOKUP_VAL	M	TRANSACTION LOOKUP IDENTIFIER VALUES	ANS	1	1	100	Any printable ASCII 7-bit	
2.353	SN	O	SUBSEQUENT NOTIFICATION	Set	0-1				
2.353_1	SN_FUN	O	SUBSEQUENT NOTIFICATION FUNCTION	N	1	1	1		
2.353_2	SN_ADDRS	O	SUBSEQUENT NOTIFICATION EMAIL ADDRESSES	ANS	1	1	250	Any printable ASCII 7-bit	

Table D-12: LFIS Type-2 Field Requirements

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.006	ATN	M	ATTENTION INDICATOR	ANS	1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	
2.010	CIN	M	CONTRIBUTOR CASE IDENTIFIER NUMBER	Set	1				
2.010A	CIN_PRE	M	CONTRIBUTOR CASE PREFIX	ANS		1	24	Any printable ASCII 7-bit	
2.010B	CIN_ID	M	CONTRIBUTOR CASE ID	ANS		1	24	Any printable ASCII 7-bit	
2.011	CIX	M	CONTRIBUTOR CASE IDENTIFIER EXTENSION	N	1	2	4		
2.012	LCN	O	FBI LATENT CASE NUMBER	ANS	0-1	11	11	First two characters maybe AN followed by hyphen. Remaining are AN	

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.013	LCX	O	FBI LATENT CASE EXTENSION	N	0-1	4	4		
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.023	AGR	O	AGE RANGE	N	0-1	4	4		
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	O	RACE	A	0-1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	0-10	3	10	Blanks allowed	
2.028	HTR	M	HEIGHT RANGE	AN	1	6	6		
2.030	WTR	O	WEIGHT RANGE	N	0-1	6	6		
2.031	EYE	O	COLOR EYES	A	0-1	3	3		
2.032	HAI	O	HAIR COLOR	A	0-1	3	3		
2.034	PAT	O	PATTERN LEVEL CLASSIFICATIONS	Set	0-30				
2.034A	PAT_FGP	M	FINGER NUMBER	N		2	2		
2.034B	PAT_CL1	M	PATTERN CLASSIFICATION CODE	A		2	2		
2.044	GEO	O	GEOGRAPHICAL AREA OF SEARCH	A	0-5	2	2		
2.067	IMA	M	IMAGE CAPTURE EQUIPMENT	Set	0-1				
2.067A	IMA_MAK	M	ORIGINATING FINGERPRINT READING SYSTEM MAKE	ANS		1	25	Any printable ASCII 7-bit	
2.067B	IMA_MODL	M	ORIGINATING FINGERPRINT READING SYSTEM MODEL	ANS		1	25	Any printable ASCII 7-bit	
2.067C	IMA_SERNO	M	ORIGINATING FINGERPRINT READING SYSTEM SERIAL	ANS		1	50	Any printable ASCII 7-bit	
2.073	CRI	O	CONTROLLING AGENCY IDENTIFIER	ANS	0-3	1	9		
2.074	FGP	O	FINGER POSITION	N	0-10	2	2		
2.076	PRI	M	PRIORITY	N	1	1	1		

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.079	NCR	O	NUMBER OF CANDIDATE'S IMAGES RETURNED	N	0-20	1	2		
2.083	ULF	O	UNSOLVED LATENT FILE	A	0-1	1	1		
2.091	RCD1	O	RIDGE CORE DELTA ONE FOR SUBPATTERN	Set	0-10				
2.091A	FGP	O	FINGER NUMBER	N		2	2		
2.091B	RCN1	O	RIDGE COUNT NUMBER 1	N		1	2		
2.092	RCD2	M	RIDGE CORE DELTA TWO FOR SUBPATTERN	Set	1-10				
2.092A	FGP	M	FINGER NUMBER	N		2	2		
2.092B	RCN2	M	RIDGE COUNT NUMBER 2	N		1	2		
2.319	LATENT_TECH	M	NAME OF LATENT TECHNICIAN	ANS	1	3	100	Commas, hyphens, and blanks.	
2.320	LATENT_SUB	M	NAME OF LATENT SUBMITTER	ANS	1	3	100	Commas, hyphens, and blanks.	

Table C-15: LFFS Type-2 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.006	ATN	M	ATTENTION INDICATOR	ANS	1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	
2.010	CIN	M	CONTRIBUTOR CASE IDENTIFIER NUMBER	Set	1				
2.010A	CIN_PRE	M	CONTRIBUTOR CASE PREFIX	ANS		1	24	Any printable ASCII 7-bit	

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.010B	CIN_ID	M	CONTRIBUTOR CASE ID	ANS		1	24	Any printable ASCII 7-bit	
2.011	CIX	M	CONTRIBUTOR CASE IDENTIFIER EXTENSION	N	1	2	4		
2.012	LCN	O	FBI LATENT CASE NUMBER	ANS	0-1	11	11	First two characters maybe AN followed by hyphen. Remaining are AN	
2.013	LCX	O	FBI LATENT CASE EXTENSION	N	0-1	4	4		
2.020	POB	M	PLACE OF BIRTH	A	1	2	2		
2.023	AGR	O	AGE RANGE	N	0-1	4	4		
2.024	SEX	M	SEX	A	1	1	1		
2.025	RAC	O	RACE	A	0-1	1	1		
2.026	SMT	O	SCARS MARKS AND TATTOOS	AS	0-10	3	10	Blanks allowed	
2.028	HTR	M	HEIGHT RANGE	AN	1	6	6		
2.030	WTR	O	WEIGHT RANGE	N	0-1	6	6		
2.031	EYE	O	COLOR EYES	A	0-1	3	3		
2.032	HAI	O	HAIR COLOR	A	0-1	3	3		
2.034	PAT	O	PATTERN LEVEL CLASSIFICATIONS	Set	0-30				
2.034A	PAT_FGP	O	FINGER NUMBER	N		2	2		
2.034B	PAT_CL1	O	PATTERN CLASSIFICATION CODE	A		2	2		
2.044	GEO	M	GEOGRAPHICAL AREA OF SEARCH	A	1-49	2	2		
2.073	CRI	O	CONTROLLING AGENCY IDENTIFIER	ANS	0-3	1	9		
2.074	FGP	O	FINGER POSITION	N	0-10	2	2		
2.076	PRI	M	PRIORITY	N	1	1	1		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.079	NCR	O	NUMBER OF CANDIDATE'S IMAGES RETURNED	N	0-20	1	2		
2.083	ULF	O	UNSOLVED LATENT FILE	A	0-1	1	1		
2.091	RCD1	O	RIDGE CORE DELTA ONE FOR SUBPATTERN	Set	0-10				
2.091A	FGP	O	FINGER NUMBER	N		2	2		
2.091B	RCN1	O	RIDGE COUNT NUMBER 1	N		1	2		
2.092	RCD2	M	RIDGE CORE DELTA TWO FOR SUBPATTERN	Set	0-10				
2.092A	FGP	M	FINGER NUMBER	N		2	2		
2.092B	RCN2	M	RIDGE COUNT NUMBER 2	N		1	2		
2.319	LATENT_TECH	M	NAME OF LATENT TECHNICIAN	ANS	1	3	100	Commas, blanks, and hyphens.	
2.320	LATENT_SUB	M	NAME OF LATENT SUBMITTER	ANS	1	3	100	Commas, blanks, and hyphens.	

Table D-13: IRQ Type-2 Field Requirements

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	7		
2.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
2.006	ATN	M	ATTENTION INDICATOR	ANS	1	3	30	Any printable ASCII 7-bit except period (.)	
2.007	SCO	O	SEND COPY TO	ANS	0-9	9	19	Any printable ASCII 7-bit	
2.057	FNR	O	FINGER NUMBER(S) REQUESTED	N	0-13	2	2		
2.073	CRI	O	CONTROLLING AGENCY IDENTIFIER	ANS	0-3	1	9		

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
2.303	DOD_NO	O	DOD NUMBER	AN	0-5	1	9		
2.311	NAM1	O	NAME-ONE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.312	NAM2	O	NAME-TWO	AS	0-1	1	50	Any printable ASCII 7-bit	
2.313	NAM3	O	NAME-THREE	AS	0-1	1	50	Any printable ASCII 7-bit	
2.314	NAM4	O	NAME-FOUR	AS	0-1	1	50	Any printable ASCII 7-bit	
2.316	RMS	O	REQUEST MUG SHOT	A	0-1	1	1		

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APPENDIX E: TYPE-4 RECORD REQUIREMENTS

This section defines the Type-4 Record requirements. Please see Table B-1 for information on which TOTs require/allow use of Type-4 and the number of occurrences allowed. Type-4 Records are used to carry 500 ppi fingerprints when used. Type-4 records are completely defined in ITL 1-2000.

Please note that the ITL 1-2000 does not assign Field Numbers for Type-4. These were added for traceability during testing.

TableE-1: Type-4 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
4.001	LEN	M	LOGICAL RECORD LENGTH	B	1	4	4		Occupies bytes 1 through 4.
4.002	IDC	M	IMAGE DESIGNATION CHARACTER	B	1	1	1		Occupies byte 5.
4.003	IMP	M	IMPRESSION TYPE	B	1	1	1		Occupies byte 6.
4.004	FGP	M	FINGERPRINT POSITION	B	1	6	6		Occupies bytes 7 through 12.
4.005	ISR	M	IMAGE SCANNING RESOLUTION	B	1	1	1		Occupies byte 13.
4.006	HLL	M	HORIZONTAL LINE LENGTH	B	1	2	2		Occupies bytes 14 and 15.
4.007	VLL	M	VERTICAL LINE LENGTH	B	1	2	2		Occupies bytes 16 and 17.
4.008	GCA	M	GRAYSCALE COMPRESSION ALGORITHM	B	1	1	1		Occupies byte 18.

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC.	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
4.009	IMG	M	IMAGE DATA	B	1	1	X		

APPENDIX F: TYPE-7 RECORD REQUIREMENTS

This section defines the Type-7 Record requirements. Please see Table B-1 for information on which TOTs require/allow use of Type-7 and the number of occurrences allowed. Type-7 Records are used to carry latent images. Type-7 records are completely defined in EFTS 7.0.

Table F-1: Type-7 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
7.001	LEN	M	Logical Record Length	B	1	4	4		
7.002	IDC	M	Image Designation Character	B	1	1	1		
7.003	IMP	M	Impression Type	B	1	1	1		
7.003	FGP	M	Finger Position	B	1	6	6		
7.005	ISR	M	Image Scanning Resolution	B	1	1	1		
7.006	HLL	M	Horizontal Line Length	B	1	2	2		
7.007	VLL	M	Vertical Line Length	B	1	2	2		
7.008	GCA	M	Grayscale Compression Algorithm	B	1	1	1		
7.009	IMG	M	Image Data	B	1	1	X		

APPENDIX G: TYPE-9 RECORD REQUIREMENTS

This section defines the Type-9 Record requirements. Please see Table B-1 for information on which TOTs require/allow use of Type-9 and the number of occurrences allowed. Type-9 Records are used to carry fingerprint minutiae data. Type-9 records are completely defined in EFTS 7.0. Please note that there are two tables for Type-9: the first for ten-print transactions and the second for latent transactions.

Table G-1: Type-9 Field Requirements (Remote, Native-mode Ten-print records)

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
9.001	LEN	M	LOGICAL RECORD LENGTH	N	1	2	5		
9.002	IDC	M	IMAGE DESIGNATION CHARACTER	N	1	2	2		
9.003	IMP	M	IMPRESSION TYPE	B	1	1	1		
9.004	FMT	M	MINUTIAE FORMAT	A	1	1	1		
9.013	AFV	C	AFIS FEATURE VECTOR	B	1	2048	2048		
9.014	FGN	M	FINGER NUMBER	N	1	2	2		
9.015	NMN	M*	NUMBER OF MINUTIAE	N	1	2	3		
9.016	FCP	M*	FINGERPRINT CHARACTERIZATION PROCESS	SET	1				
9.016A	FCP_VEN	M	EQUIPMENT	A	1	3	12		
9.016B	FCP_VID	M	VERSION IDENTIFIER	AN	1	2	2		
9.016C	FCP_MET	M	METHOD	A	1	3	3		
9.017	APC	O	AFIS/FBI PATTERN CLASSIFICATION	SET	0-3				
9.017A	APC_APAT	M	PATTERN CLASSIFICATION	A	1	2	2		
9.017B	APC_RCN1	C	FIRST SUBPATTERN RIDGE COUNT	N	1	1	2		

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FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
9.017C	APC_RCN2	C	SECOND SUBPATTERN RIDGE COUNT	N	1	1	2		
9.019	COF	O	COORDINATE OFFSETS	SET	0-1				
9.019A	COF_XYP	M	CENTER OF ROTATION IN SUBIMAGE	N		8	8		XXXXYYYY
9.019B	COF_THET	C	ROTATION ANGLE CW DEGREES	N		8	8		
9.019C	COF_XYP	C	ROTATION CENTER IN ROTATED SUBIMAGE	N		8	8		
9.019D	COF_XYP	C	OFFSET TO UL CORNER FINAL SUBIMAGE	N		8	8		
9.021	CRA	O	CORE ATTRIBUTES	SET	0-2				
9.021A	CRA_XYM	C	LOCATION	N		8	8		
9.021B	CRA_DID	C	DIRECTION IN DEGREES	N		3	3		
9.021C	CRA_PUM	C	POSITION UNCERTAINTY	N		4	4		
9.022	DLA	O	Delta Attributes	SET	0-2				
9.022A	DLA_XYM	C	Location	N	1	8	8		XXXXYYYY
9.022B	DLA_DID	C	Upward Flow Direction	N	1	3	3		
9.022C	DLA_DID	C	Leftward Flow Direction	N	1	3	3		
9.022D	DLA_DID	C	Rightward Flow Direction	N	1	3	3		
9.022E	DLA_PUM	C	Position Uncertainty	N	1	4	4		
9.023	MAT	M*	Minutiae and Ridge Count Data		1-254				
9.023A	MAT_MDX	M	Minutiae Index Number	N	1	3	3		
9.023B	MAT_XYT	M	Location Direction	N	1	11	11		
9.023C	MAT_QMS	M	Quality Measure	N	1	2	2		
9.023D	MAT_MNT	M	Minutia Type	A	1	1	1		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
9.023E	MAT_MRO	M	Minutia Index and Ridge Count Octant 0	N	1	5	5		
9.023F	MAT_MRO	M	Minutia Index and Ridge Count Octant 1	N	1	5	5		
9.023G	MAT_MRO	M	Minutia Index and Ridge Count Octant 2	N	1	5	5		
9.023H	MAT_MRO	M	Minutia Index and Ridge Count Octant 3	N	1	5	5		
9.023I	MAT_MRO	M	Minutia Index and Ridge Count Octant 4	N	1	5	5		
9.023J	MAT_MRO	M	Minutia Index and Ridge Count 5	N	1	5	5		
9.023K	MAT_MRO	M	Minutia Index and Ridge Count 6	N	1	5	5		
9.023L	MAT_MRO	M	Minutia Index and Ridge Count 7	N	1	5	5		
9.023M	MAT_RSO	O	Octant Residuals	N	1	8	8		
9.024	CHQ	O	Characterization Quality	N	0-1	1	3		
9.025	CLQ	O	Classifier Quality	N	0-1	6	7		

Table G-2: Type-9 Field Requirements (Remote, Native-mode Latent Logical records)

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
9.001	LEN	M	Logical Record Length	N	1	2	5		
9.002	IDC	M	Image Designation Character	N	1	2	2		
9.003	IMP	M	Impression Type	B	1	1	1		
9.004	FMT	M	Minutiae Format	A	1	1	1		
9.013	AFV	C	AFIS Feature Vector	B	1	2048	2048		
9.014	FGN	C	Finger Number	N	1	2	2		
9.015	NMN	M*	Number of Minutiae	N	1	2	3		
9.016	FCP	M*	Fingerprint Characterization Process	SET	1				
9.016A	FCP_VEN	M	Equipment	A	1	3	12		
9.016B	FCP_VID	M	Version Identifier	AN	1	2	2		
9.016C	FCP_MET	M	Method	A	1	3	3		
9.017	APC	O	AFIS/FBI Pattern Classification	SET	0-3				
9.017A	APC_APAT	M	Pattern Classification	A	1	2	2		
9.017B	APC_RCN1	C	First Subpattern Ridge Count	N	1	1	2		
9.017C	APC_RCN2	C	Second Subpattern Ridge Count	N	1	1	2		
9.018	ROV	O	Region of Value Polygon	SET	0-1				
9.018A	ROV_XYM	M	Vertex (XXXXYYYY)	N	3-20	8	8		
9.019	COF	O	Coordinate Offsets		0-1				
9.019A	COF_XYP	M	Offset to UL Corner Subimage	N	1	8	8		
9.019B	COF_XYP	C	Center of Rotation in Subimage	N	1	8	8		

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FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
9.019C	COF_THET	C	Rotation Angle CW Degrees	N	1	8	8		
9.019D	COF_XYP	C	Rotation Center in Rotated Subimage	N	1	8	8		
9.019E	COF_XYP	C	Offset to UL Corner Final Subimage	N	1	8	8		
9.020	ORN	M	Orientation Uncertainty	N	1	1	3		
9.021	CRA	O	Core Attributes	SET	0-2				
9.021A	CRA_XYM	C	Location	N	1	8	8		
9.021B	CRA_DID	C	Direction in Degrees	N	1	3	3		
9.021C	CRA_PUM	C	Position Uncertainty	N	1	4	4		
9.022	DLA	O	Delta Attributes	SET	0-2				
9.022A	DLA_XYM	C	Location	N	1	8	8		XXXXYYYY
9.022B	DLA_DID	C	Upward Flow Direction	N	1	3	3		
9.022C	DLA_DID	C	Leftward Flow Direction	N	1	3	3		
9.022D	DLA_DID	C	Rightward Flow Direction	N	1	3	3		
9.022E	DLA_PUM	C	Position Uncertainty	N	1	4	4		
9.023	MAT	M*	Minutiae and Ridge Count Data		1-254				
9.023A	MAT_MDX	M	Minutiae Index Number	N	1	3	3		
9.023B	MAT_XYT	M	Location Direction	N	1	11	11		
9.023C	MAT_QMS	M	Quality Measure	N	1	2	2		
9.023D	MAT_MNT	M	Minutia Type	A	1	1	1		
9.023E	MAT_MRO	M	Minutia Index and Ridge Count Octant 0	N	1	5	5		
9.023F	MAT_MRO	M	Minutia Index and Ridge Count Octant 1	N	1	5	5		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
9.023G	MAT_MRO	M	Minutia Index and Ridge Count Octant 2	N	1	5	5		
9.023H	MAT_MRO	M	Minutia Index and Ridge Count Octant 3	N	1	5	5		
9.023I	MAT_MRO	M	Minutia Index and Ridge Count Octant 4	N	1	5	5		
9.023J	MAT_MRO	M	Minutia Index and Ridge Count 5	N	1	5	5		
9.023K	MAT_MRO	M	Minutia Index and Ridge Count 6	N	1	5	5		
9.023L	MAT_MRO	M	Minutia Index and Ridge Count 7	N	1	5	5		
9.023M	MAT_RSO	O	Octant Residuals	N	0-1	8	8		

APPENDIX H: TYPE-10 RECORD REQUIREMENTS

This section defines the Type-10 Record requirements. Please see Table B-1 for information on which TOTs require/allow use of Type-10 and the number of occurrences allowed. Type-10 Records are used to carry facial images or images of scars, marks and/or tattoos. Type-10 records are completely defined in EFTS 7.0. Fields 10.001 through 10.022 and 10.999 are defined in EFTS 7.0 which is the source for Type-10 information for EBTS 1.2; however, ITL 1-2000 has additional fields (10.040 through 10.043) that could be used. If they are used, they should be used in accordance with ITL 1-2000.

Table H-1: Type-10 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
10.001	LEN	M	Logical Reocrd Length	N	1	3	7		
10.002	IDC	M	Image Designation Character	N	1	1	4		
10.003	IMT	M	Image Type	A	1	4	6		
10.004	SRC	M	Source Agency/ORI	AN	1	9	20		
10.005	PHD	M	Photo Date	N	1	8	8		
10.006	HLL	M	Horizontal Line Length	N	1	3	4		
10.007	VLL	M	Vertical Line Length	N	1	3	4		
10.008	SLC	M	Scale Units	N	1	1	1		
10.009	HPS	M	Horizontal Pixel Scale	N	1	2	4		
10.010	VPS	M	Vertical Pixel Scale	N	1	2	4		
10.011	CGA	M	Compression Algorithm	A	1	4	6		
10.012	CSP	M	Color Space	A	1	3	4		
10.020	POS	M	Subject Pose	A	1	1	1		Should only be used when Image Type (10.003 IMT) is set to FACE.

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
10.021	POA	O	Pose Offset Angle	N	0-1	1	4		Should only be used when Image Type (10.003 IMT) is set to FACE. Should only be used when POS (10.020) contains an 'A.' Values: -180 to +180 degrees
10.022	PXS	O	Photo Description	A	0-9	3	20		Should only be used when Image Type (10.003 IMT) is set to FACE.
10.040	SMT	M*	NCIC Designation Code	A	1-3	4	11		*This field is only required per ITL 1-2000 and not EBTS 1.2. This field is only used when Image Type (10.003 IMT) is set to SCAR, MARK, or TATTOO.
10.041	SMS	O	Scar/Mark/Tattoo Size	N	0-1	4	6		This field is from ITL 1-2000. This field is only used when Image Type (10.003 IMT) is set to SCAR, MARK, or TATTOO.
10.042	SND	O	SMT Descriptors	AN	0-9	16	51		This field is only used when Image Type (10.003 IMT) is set to SCAR, MARK, or TATTOO.
10.043	COL	O	Colors Present	A	0-9	4	21		This field is only used when Image Type (10.003 IMT) is set to SCAR, MARK, or TATTOO.
10.999	DAT	M	Image Data	B	1	2	5000000		

APPENDIX I: TYPE-13 RECORD REQUIREMENTS

This section defines the Type-13 Record requirements. Please see Table B-1 for information on which TOTs require/allow use of Type-13 and the number of occurrences allowed. Type-13 Records are used to carry high resolution (1000 ppi and above) latent fingerprint images. Type-13 records are completely defined in ITL 1-2000.

Table I-1: Type-13 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
13.001	LEN	M	Logical Record Length	N	1	3	7		
13.002	IDC	M	Image Designation Character	N	1	1	4		
13.003	IMP	M	Impression Type	A	1	1	1		
13.004	SRC	M	Source Agency/ORI	AN	1	9	20		
13.005	LCD	M	Latent Capture Date	N	1	8	8		
13.006	HLL	M	Horizontal Line Length	N	1	3	4		
13.007	VLL	M	Vertical Line Length	N	1	3	4		
13.008	SLC	M	Scale Units	N	1	1	1		
13.009	HPS	M	Horizontal Pixel Scale	N	1	1	4		
13.010	VPS	M	Vertical Pixel Scale	N	1	1	4		
13.011	CGA	M	Compression Algorithm	A	1	4	6		
13.012	BPX	M	Bits Per Pixel	N	1	1	2		
13.013	FGP	M	Finger Position	N	1-6	1	2		
13.020	COM	O	Comments	A	0-1	1	127		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
13.999	DAT	M	Image Data	B	1	1	N		

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APPENDIX J: TYPE-14 RECORD REQUIREMENTS

This section defines the Type-14 Record requirements. Please see Table B-1 for information on which TOTs require/allow use of Type-14 and the number of occurrences allowed. Type-14 Records are used to carry fingerprint images. It is recommended that 1000 ppi or higher quality images are stored in Type-14; however, 500 ppi fingerprints can be stored here with proper coding. Type-14 records are completely defined in ITL 1-2000.

Table J-1: Type-14 Field Requirements

TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
14.001	LEN	M	Logical Record Length	N	1	3	7		
14.002	IDC	M	Image Designation Character	N	1	1	4		
14.003	IMP	M	Impression Type	A	1	1	1		
14.004	SRC	M	Source Agency/ORI	AN	1	9	20		
14.005	LCD	M	Latent Capture Date	N	1	8	8		
14.006	HLL	M	Horizontal Line Length	N	1	3	4		
14.007	VLL	M	Vertical Line Length	N	1	3	4		
14.008	SLC	M	Scale Units	N	1	1	1		
14.009	HPS	M	Horizontal Pixel Scale	N	1	1	4		
14.010	VPS	M	Vertical Pixel Scale	N	1	1	4		
14.011	CGA	M	Compression Algorithm	A	1	4	6		
14.012	BPX	M	Bits Per Pixel	N	1	1	2		
14.013	FGP	M	Finger Position	N	1-6	1	2		
14.020	COM	O	Comments	A	0-1	1	127		

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TAG	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
14.999	DAT	M	Image Data	B	1	1	N		

APPENDIX K: TYPE-16 RECORD REQUIREMENTS

This section defines the Type-16 Record requirements. Please see Table B-1 for information on which TOTs require/allow use of Type-16 and the number of occurrences allowed. Type-16 Records are used to iris images. Type-16 records are completely defined in ITL 1-2000 and EBTS 1.2.

Table K-1: Type-16 Field Requirements

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
16.001	LEN	M	Logical Record Length	N	1	3	7		
16.002	IDC	M	Image Designation Character	N	1	1	4		
16.003	FID	M	Feature Identifier	N	1	1			
16.004	MMS	O	Make/Model/Serial Number	SET	0-1				
16.004A	MMS_MAKE	M	Make	ANS	1	1	50	Any 7-bit non-control character	
16.004B	MMS_MODEL	M	Model	ANS	1	1	50	Any 7-bit non-control character	
16.004C	MMS_SERIAL	M	Serial Number	ANS	1	1	50	Any 7-bit non-control character	
16.005	IFM	M	Image Format	N	1	1	2		
16.006	HLL	M	Horizontal Line Length	N	1	3	4		
16.007	VLL	M	Vertical Line Length	N	1	3	4		
16.008	SLC	M	Scale Units	N	1	1	1		
16.009	HPS	M	Horizontal Pixel Scale	N	1	1	4		
16.010	VPS	M	Vertical Pixel Scale	N	1	1	4		

FIELD NUMBER	MNEMONIC	M/O	DESCRIPTION	TYPE	OCC	MIN LEN	MAX LEN	ACCEPTED SPECIAL CHARACTERS	SPECIAL CONDITIONS
16.011	CGA	M	Compression Algorithm	A	1	4	5		
16.012	BPS	M	Bits Per Pixel	N	1	1	2		
16.013	IIQ	O	Iris Image Quality	N	0-1	2	3		
16.014	RAE	O	Rotation Angle of Eye	AN	0-1	1	4		
16.015	RUC	O	Rotation Uncertainty	AN	0-1	1	4		
16.016	IPR	O	Image Properties	SET	0-1				
16.016A	IPR_HZ_OR	O	Horizontal Orientation	N	0-1	1	1		
16.016B	IPR_VR_OR	O	Vertical Orientation	N	0-1	1	1		
16.016C	IPR_ST	O	Scan Type	N	0-1	1	1		
16.016D	IPR_IRIS_OCC	O	Iris Occlusions	N	0-1	1	1		
16.016E	IPR_OCC_FILL	O	Occlusion Filling	N	0-1	1	1		
16.016F	IPR_BEXT	O	Boundary Extraction	N	0-1	1	1		
16.017	DID	O	Device Unique Identifier	ANS	0-1	16	16	Any 7-bit non-control character	
16.018	GUID	O	Global Unique Identifier	AN	0-1	16	16		
16.019	ITF	O	Image Transformation	N	0-1	1	1		
16.999	DAT	M	Iris Image	B	1	1	N		

APPENDIX L: IMPACT CODES

PRIORITY	DESCRIPTION	IMPACT
Priority 1	o Prevent the accomplishment of an essential Capability o Jeopardize safety, security, or other requirement	Emergency
Priority 2	o Adversely affect the accomplishment of an operational or mission-essential capability, and no work-around solution is known o Adversely affect technical, cost, or schedule risks to the project or to life-cycle support of the system, and no work-around solution is known	Urgent
Priority 3	o Adversely affect the accomplishment of an operational or mission-essential capability, but a work-around solution is known o Adversely affect technical, cost, or schedule risks to the system or to life cycle support of the system, but a work-around solution is known	Urgent
Priority 4	o Result in user / operator inconvenience or annoyance, but does not affect a required operational or mission-essential capability. o Result in inconvenience or annoyance for development or support personnel, but does not prevent the accomplishment of those responsibilities	Routine
Priority 5	o Any other finding	Routine

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APPENDIX M: CRITICAL ISSUES CRITERIA

Table M-1: DoD EBTS V1.2 Critical Issue Criteria

CI-1 MISSION PERFORMANCE (EFFECTIVENESS)				
MEASURES OF EFFECTIVENESS	**CRITERIA**	**THRESHOLD**	**SOURCE**	**MEETS CRITERIA**
MOE 1.1 The system must be able to capture necessary biometrics data to meet intended mission requirements in a timely manner.	All of the data normally placed on a fingerprint card (Type 2 data fields) will be entered directly into the live scan system and checked for errors and miss sequenced fingers. The system will also capture facial images (mug shots).	Fingerprint images must include ten rolled impressions, and/or two thumb plain impression, with plain impressions (slaps) of each of the remaining sets of four fingers of each hand. Facial images may include a scanned photograph, a live image captured on a digital camera, or a digitized 'freeze frame' from a video camera.	FBI EFTS V7.0/ DoD EBTS V1.2	
MOE 1.2 The system must collect fingerprint images at a resolution of at least 500 pixels per inch (PPI), but preferably at 1000 PPI and minutia points for biometric template.	Images collected are to be compliant with .eft specification standards.	Scanner must be Appendix F compliant. https://www.fbibiospecs.org/IAFIS/Default.aspx	FBI EFTS V7.0/ DoD EBTS V1.2	
MOE 1.3 System shall check for errors and overall quality of the captured biometric data.	The system shall perform image quality and sequence checks on all fingerprint images submitted and alert the operator if the images are unacceptable or out of order.	Operator must be able to correct any problems detected.	FBI EFTS V7.0/ DoD EBTS V1.2	
MOE 1.4 The system must be able to store necessary biometrics data to meet intended mission requirements in a timely manner.	Data collected (to include all biometric samples taken) are to be compliant with ABIS and FBI EFTS V7.0 standards for file storage.	500 ppi fingerprints must be stored in the Type-4 record or Type-14 record field. 1000 ppi fingerprints should be stored in Type-14 record field. Facial images (mug shots) will be stored in the Type-10 record field.	DoD EBTS V1.2	

CI-1 MISSION PERFORMANCE (EFFECTIVENESS)

MEASURES OF EFFECTIVENESS	CRITERIA	THRESHOLD	SOURCE	MEETS CRITERIA
MOE 1.5 The collection station must be able to retrieve necessary biometric data to meet intended mission requirements in a timely manner.	System should be able to verify collection was successful.	System is able to retrieve biometrics data.	DoD EBTS V1.2	
MOE 1.6 The collection station must be able to manipulate necessary biometric data to meet intended mission requirements in a timely manner.	Operator shall be able to reject images of poor quality or accept images of poor quality if the enrollee is having a difficult time enrolling into the system.	System shall allow manipulation of biometric data.	DoD EBTS V1.2	
MOE 1.7 The collection station must be able to display necessary biometric data to meet intended mission requirements in a timely manner.	System shall display collected biometric data.	Data displayed on screen.	DoD EBTS V1.2	
MOE 1.8 The system will collect and record data in a correct and complete manner.	The system must record data as required by AR 190-8, Global Screening Criteria, and other DOD Directives.	System records all required FBI EFTS and EBTS fields.	DoD EBTS V1.2	
MOE 1.9 The system must be able to identify errors and reject incorrectly entered data.	All mandatory and optional data fields are edit checked for length, and type of data included. All data entry fields shall be electronically validated within the electronic fingerprint capture device, card scanner data entry	Transactions lacking mandatory data are rejected or auto-populated with correct default values. All mandatory data and all optional data fields are edit checked for length, and type of data included. Optional data failing this validation check are ignored.	DoD EBTS V1.2	

CI-1 MISSION PERFORMANCE (EFFECTIVENESS)

MEASURES OF EFFECTIVENESS	CRITERIA	THRESHOLD	SOURCE	MEETS CRITERIA
	device, or latent workstation prior to electronic submission.			