



May 22, 2018

ELECTRONIC BIOMETRIC TRANSMISSION

SPECIFICATION (EBTS)

TECHNICAL AND OPERATIONAL UPDATE (TOU)

10.0.9 REDLINES

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SECTION 1 – MESSAGE TO CJIS SYSTEMS OFFICERS, STATE IDENTIFICATION BUREAUS, AND OTHER INTERFACE AGENCIES

Technical and Operational Updates (TOUs) document functional changes to the Electronic Biometric Transmission Specification (EBTS) as an interim solution (until the release of the next major version) to enable FBI/CJIS system user compliance. The purpose of this document is to identify TOU 9 changes with redlines for user clarity. This and all previous TOUs are documented within the full text of the EBTS version 10.0.9, identified through configuration management number NGI-DOC-01862-1.2.

Please note that the functional changes documented by this TOU are cumulative such that user compliance requires adherence to the most recent version of the EBTS and incorporation of all functional changes documented by this and all prior TOUs since the release of the most recent major version of the EBTS. A comprehensive list of all TOU functional changes since the release of the most recent major version of the EBTS is located in Section 3 and sorted by section.

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Users are reminded that any questions concerning the distribution of EBTS TOUs should be directed to the Programs Research and Standards Unit.

Archived and Active versions of the EBTS and its TOUs are available via the Internet on the FBI Biospecs Web site at <<http://www.fbibiospecs.cjis.gov>>.

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SECTION 2 – FUNCTIONAL CHANGES FOR 10.0.9

Section 2 contains information concerning the modifications constituting EBTS 10.0.9. The following table is an overview of the functional modifications for this TOU version.

Section	Change
Throughout	Grammar, punctuation, and minor style updates
3.1.1	Removed MAPC TOT from EBTS
3.1.1.15 MAPC	Removed MAPC TOT from EBTS
3.5.3 RBRN	Updated RBRN description
3.6.20 RBSCVL	Updated RBSCVL description
3.6.20 RBSCVL	Removed Rap Back Code value “F” from Rap Back Civil Category Code Values Table
3.6.22 RBMNT	Updated Rap Back Replace & Renew descriptions
3.8.4	Corrected plain thumb sizes in Recommended Sizes for Fingerprint Table
Appendix A	Removed second paragraph
	Removed MAPC from Table A-2
Appendix C	Removed 2.094 CCN from EBTS
	Removed Future Capability reference for 2.2018 DNAC and updated description
	Removed Rap Back Code value “F” from RBC Values Table
	Updated Rap Back Code “N” in RBMI Values Table
	Updated 2.2071 RBST description and removed RBST Values Table
	Updated description for 2.2049 RBTD
	Removed 2.099 SAN from EBTS
	Removed 2.2001 NAM1, 2.2002 NAM2, 2.2003 NAM3, 2.2004 NAM4 and 2.2005 NAM5 from EBTS
	Added 2.2018 DNAC to Table C-1
	Updated Comments/Special Characters in Table C-1 for 2.2039 RBMI and 2.2049 RBTD
Appendix D	Added 2.2018 SRE in Table D-1
Appendix I	Updated 2.2071 RBST for RBSCVL in Table I-1
Appendix L	Added missing fields to Table L-1
	Removed 2.094 CCN and 2.099 SAN from Table L-1
	Removed 2.2001 NAM1, 2.2002 NAM2, 2.2003 NAM3, 2.2004 NAM4, and 2.2005 NAM5 from Table L-1
Appendix M	Added error message code L0032
	Added new error message codes L0042, L0176, L0181, L0182, M0056, and M0057
Appendix N	Added field 14.025 ASEG to Appendix N

1.2 File Format

[Unchanged text not included here for brevity]

For other Record Types, the default character encoding for Traditional encoding is 7-bit ASCII. Users are encouraged to use UTF-8 for ‘U’ and ‘user-defined’ character types that do not require special control characters in Traditional Encoding. It is not possible to switch encodings within an XML transaction. **For more information on ASCII characters, see Appendix C.**

[Unchanged text not included here for brevity]

1.4 Error Handling

[Unchanged text not included here for brevity]

The EBTS Compliance Tool Suite, consisting of the Transaction and Reference Tools, is helpful to use before submitting a transaction to identify and resolve potential errors before transactions are rejected. The Transaction Tool allows users to validate transactions by displaying if a transaction is invalid or valid according to EBTS requirements. If invalid, the tool displays missing and incorrect fields. The Reference Tool provides users with the ability to easily view transaction, record, and field requirements in the EBTS specification. Both tools can be found at www.fbibiospecs.cjis.gov/EBTS/Approved.

[Unchanged text not included here for brevity]

1.8 Reference Documents

[Unchanged text not included here for brevity]

- **Contact Rap_Back@ic.fbi.gov for information about obtaining the latest version of the Rap Back Policy and Implementation Guide**

3.1.1 Tenprint Fingerprint Identification Submission

[Unchanged text not included here for brevity]

TOT TRANSACTION

NFUE Non-Federal User Fee Expedite

NFUF Non-Federal Applicant User Fee

MAP Miscellaneous Applicant Civil

~~MAPC Miscellaneous Applicant Civil (Manual Out)~~

DEK Known Deceased

DEU Unknown Deceased

MPR Missing Person

AMN Amnesia Victim

[Unchanged text not included here for brevity]

3.1.1.15 Miscellaneous Applicant Civil (Manual Out) (MAPC) – **Deprecated on 5/22/18 TOU 9**

~~These no-charge submissions are used for non-federal law enforcement and criminal justice employment (including state and local law enforcement), as well as gun permit applications from criminal justice agencies. A submission contains ten rolled and four plain impressions, or three identification flat impressions, along with biographic descriptor data. When the FBI/CJIS completes processing, it will print a non-identification, positive identification, or Reject response report and mail it to the requestor.~~

~~Note: MAPC is a limited-use TOT that requires coordination with FBI/CJIS prior to use.~~

3.1.1.20 Rap Back Subscription Requests

The NGI's Rap Back Service was developed in response to a need for notification of activity that occurs after the initial processing and retention of fingerprint transactions. The NGI's Rap Back Service provides benefits in two domains of implementation: (a) for non-criminal justice applicants, employees, volunteers, licensees, etc, and (b) for individuals under criminal justice supervision or criminal investigation. A Rap Back Subscription is established by either a retained Tenprint Identification Search request or a Subsequent Subscription request. ~~Subscribers are encouraged to consult the Rap Back Service Policy and Implementation Guide for additional information.~~

[Unchanged text not included here for brevity]

3.4.4.2 Text-Based Photo/SMT Search Request (TXTSRCH)

This transaction will allow the user to specify demographic data along with Scar, Mark, and Tattoo (SMT) descriptive data to be used in a search for investigative leads and return facial or SMT photos, based on the Image Type (2.062 IMT) and descriptive parameters specified in the request. The TXTSRCH transaction is typically used to generate photo lineups of criminal subjects that have physical characteristics (~~i.e., skin tone, e.g.,~~ hair color, eye color, sex, SMT specific characteristics, etc.) similar to a criminal suspect. To search for facial images, the IMT (2.062) field must be set to '9' and the sought for image should be described using one or more of the biographic descriptive fields. Each descriptor will be added to the required match parameters, therefore adding multiple descriptors may return few or no candidates.

[Unchanged text not included here for brevity]

3.5.3 Rap Back Renewal Notification (RBRN)

The FBI/CJIS will send a Rap Back Renewal Notification to the Rap Back Subscription Owner ~~10 days~~ prior to the designated expiration date for each Rap Back Subscription, advising of the upcoming expiration of their Rap Back Subscription. The Rap Back Subscription Owner has the ability to extend the expiration date to a new date ~~within the existing Rap Back Subscription Term or to renew the Rap Back Subscription Term by sending a Rap Back Maintenance Request.~~ The Rap Back Renewal Notification will include key Rap Back Subscription data in addition to the expiration date.

3.6.11 Disposition File Maintenance Submission ~~Request~~ (DSPE)

The Disposition File Maintenance Submission ~~Request~~ (DSPE) allows an authorized contributor to add, to replace, append, or delete disposition data on an existing arrest event. The Event Identifier (2.2035 EVI) or Date of Arrest (2.045 DOA) field is used to associate the disposition information with an existing arrest event. Either EVI or DOA must be populated. EVI is preferred, as DOA may not be unique for a subject arrested multiple times in a single day.

3.6.12 Disposition File Maintenance Response (DSPR)

The Disposition File Maintenance Response (DSPR) will be sent back to the requestor and indicates whether the transaction was processed as submitted. The response information will be “Record Updated” if the record was successfully updated with the submitted Court Segment Literal (2.051 CSL) ~~or “Manual Processing Required” if subsequent analysis of the submitted CSL is necessary.~~ The response information will be contained in the Action to be Taken field (2.071 ACN). Reject responses for DSPE requests where the supplied disposition information was unable to be applied to the identity will be via the ERRA TOT.

3.6.20 Rap Back Subsequent Subscription Request – Civil (RBSCVL)

Any authorized agency may establish a Civil Rap Back Subscription by submitting a civil UCN (2.014 FBI) and either a full Tenprint Fingerprint image set or an Event Identifier (2.2035 EVI) from a previously submitted Civil Tenprint Fingerprint Identification Search. A Subscription also requires the Name (2.018 NAM), Date of Birth (2.022 DOB) of the Subscription subject, ~~the Rap Back Subscription Term (2.2074 RBST),~~ and the Subscription Rap Back Category (2.2065 RBC). Allowable Civil Rap Back Categories are as follows:

Table 6 Rap Back Civil Category Code Values

Rap Back Code Value	Rap Back Category Code Description
F	Firearms
I	Volunteer, Child Care/School Employee, Non-Criminal Justice Employee and Licensing
J	Criminal Justice Employee
S	Security Clearance Information Act (SCIA)

~~The Civil Rap Back Subscription Term may be two years, five years, or lifetime.~~ All subscriptions require the Rap Back Expiration Date (2.2015 RBXD) to be set, in order to establish the Subscription validation period.

Note: RBSCVL is a limited-use TOT that requires coordination with FBI/CJIS prior to use.

3.6.22 Rap Back Maintenance ~~Submission Request~~ (RBMNT)

The Rap Back Maintenance ~~Submission Request~~ (RBMNT) provides the opportunity for a Rap Back Subscription Owner to modify, renew, or delete their Rap Back Subscription record information. Both the FBI Number/UCN (2.014 FBI) and Rap Back Subscription Identifier (2.2048 RBSI) are required. Rap Back Maintenance can be performed on expired or cancelled Subscriptions for a configurable time period (60 days) after the expiration date or cancellation date.

[Unchanged text not included here for brevity]

The type of Rap Back Maintenance the Rap Back Subscription Owner wishes to perform is signified by the Rap Back Maintenance Indicator (2.2039 RBMI), which supports the following maintenance actions: Replace, Delete, Append, Cancel, ~~Renew~~, and Un-cancel.

Replace

The matching Rap Back Subscription will be updated with Rap Back Subscription Data provided in the request. The data fields that can be replaced are: Name (2.018 NAM), Date of Birth (2.022

DOB), Rap Back Activity Notification Format (2.2062 RBNF), Rap Back Opt-Out In State Indicator (2.2063 RBOO), Rap Back Attention Indicator (2.2070 RBATN), Rap Back Expiration Date (2.2015 RBXD), Rap Back Trigger (2.2040 RBT), Rap Back Recipient (2.2020 RBR), Rap Back Disclosure Indicator (2.2067 RBDI), and Rap Back User-Defined (2.2064 RBUD). ~~Rap Back subscriptions with a non-lifetime term must ensure that the replaced expiration date is on or prior to the Rap Back Term Date.~~

[Unchanged text not included here for brevity]

Renew (Currently Not Used)

Renew is only applicable for Rap Back Subscriptions with a “Civil” Rap Back Category (2.2065 RBC) and a non-lifetime term; the matching Rap Back Subscription will be renewed for another term equal to the original term. ~~As there are currently no fees associated with the Rap Back Services, the renew maintenance indicator is not being used at this time. A Subscription with a lifetime term must use the “Replace” maintenance indicator to extend the expiration date.~~

~~The Rap Back fields needed to renew a Subscription are the FBI Number/UCN (2.014 FBI), Rap Back Subscription Identifier (2.2048 RBSI), and Expiration Date (2.2015 RBXD). The expiration date must be on or prior to the new Rap Back Term Date (2.2049 RBTD) and is used by the Subscriber for validation purposes.~~

[Unchanged text not included here for brevity]

3.8.4 Fingerprint Image Size Requirements

[Unchanged text not included here for brevity]

Table 8 Recommended Sizes for Fingerprint

Fingerprint	Width Pixels (Inches)	Height Pixels (Inches)
Plain Thumb Impression (@ 500 ppi)	500 (1.0)	1,500 (3.0) 1,000 (2.0)
Plain Thumb Impression (@ 1,000 ppi)	1,000 (1.0)	3,000 (3.0) 2,000 (2.0)

Appendix A: Transaction Response Times

Table A-1 represents maximum response times for incoming electronic transactions. NGI transaction response times listed are from receipt of transaction until transmission of response.

NGI is not responsible for transaction processing or transmission times by external systems.

Table A-2 represents types of transactions by service. The 1.006 PRY field (see definition of PRY in American National Standards Institute/National Institute of Standards and Technology - Information Technology Laboratory (ANSI/NIST-ITL) corresponds to the Priority column in Table A-1 for transactions which will process based on priority, and this field will be used to prioritize all transaction types, including investigative. PRY is not applicable to transaction types with no values in the priority column of table A-1.

~~Each agency will be allocated a maximum number of high priority transactions per transaction type per day. Once this limit is reached, high priority transactions will continue to be processed,~~

but their priority level will be adjusted to “routine”.

Table A-2 NGI Type of Transaction By Service

SERVICE	TRANSACTION	TOT	DESCRIPTION
Identification Services	Civil Fingerprint Identification Search	AMN	Amnesia Victim
		DEK	Known Deceased
		DEU	Unknown Deceased
		DOCE	Departmental Order Channeling Electronic
		EMUF	Electronic In/Manual Out User Fee Submissions
		FANC	Federal Applicant (No Charge)
		FAUF	Federal Applicant User Fee
		FNDR	Federal No Charge Direct Route
		MAP	Miscellaneous Applicant Civil
		MAPC	Miscellaneous Applicant Civil (Manual Out)
		MPR	Missing Person
		NFUE	Non-Federal User Fee Expedite
		NFUF	Non-Federal Applicant User Fee
		NNDR	Non-Federal No Charge

Appendix C: Descriptors and Field Edit Specifications for Type-2 Logical Records

1.0 User-Defined Data

Table C-1 summarizes the content of each of the fields in the Type-2 record in the traditional encoding format. The field sizes do not account for any separator characters. Some Type-2 elements have their origins as contributor-supplied data. User-defined data is that subset of contributor-supplied data that will not be stored in any CJIS files for later search or retrieval purposes. User-defined data will not be validated (with several exceptions), and therefore may in general consist of any printable 7-bit ASCII character: (i.e., free-text). This includes ASCII (decimal) codes 07 (BEL) through 13 (CR) and 32 (SP) through 127 (DEL), inclusive. Separator characters are not part of the printable character set. ~~The 7-bit ASCII characters used in NGI elements include the alphabet [upper case (capital letter) and lower case (small letter)], numbers 0 through 9, special characters, and nonprintable characters. Nonprintable characters are defined as codes 07 through 13. For additional information, reference 7-Bit ASCII guidance in ANSI/NIST-ITL 1-2011.~~

[Unchanged text not included here for brevity]

CAN 2.064 Candidate List

[Unchanged text not included here for brevity]

For traditional encoding, each field will be separated by a {US} separator and will be provided for each candidate in the list. Commas, hyphens, and spaces are allowed in the NAM subfield as specified in the ~~NCIC Message Book, Part 4 Personal Descriptors within the NCIC Code Manual~~. Each UCN and NAM set shall be separated from the next by the {RS} separator character.

[Unchanged text not included here for brevity]

~~CCN 2.094 Court Case Number (Future Capability)~~

~~This is a unique number assigned by the state or federal court system to identify a specific court event occurrence in a subject identity history record. The CCN is an optional element that may assist in matching the submitted disposition data to the correct court cycle. If present in the submission, this field should be returned in the response. Any printable 7-bit ASCII character with the exception of a period is acceptable. Embedded spaces are not permitted. A CCN must not begin with a space.~~

CSL 2.051 Court Segment Literal

[Unchanged text not included here for brevity]

Up to 999 occurrences of the CSL are allowed. Each occurrence in the traditional encoding of the CSL shall be separated by the {RS} separator character. Of the five available subfields, COL, CPL, and CDN are always mandatory, while the CDD and CCT are conditional (being required with TOTs ~~FSDP~~ ~~FDSP~~ and DSPE). A CDD (if available), followed by a COL, followed by a CPL, followed by a CDN, followed by CCT (if available), each separated by a {US} separator character must be present for each occurrence of the CSL field. If the CDD or CCT is not available, a {US} separator character alone shall be used.

[Unchanged text not included here for brevity]

DNAC 2.2018 DNA in CODIS Flag ~~(Future Capability)~~

This ~~is a one-byte~~ field ~~that will~~ indicates whether the DNA available is located in the CODIS database for the subject identified on the CAR, CNA, and CPNU TOTs. The permissible values are 'Y' or 'N'.

GEO 2.044 Geographic Area of Search

This field indicates the geographic area to be searched. The appropriate two letter state/territory abbreviation shall be used as listed in ~~Part IV of the NCIC State and Country Data Code Table–Appendix O~~. Each GEO entry shall be separated from the next by the {RS} separator character. Up to five state/territory selections can be made within the GEO field. If inclusion of all states and territories is desired, this field shall be omitted. When designating a specific state/territory within the GEO field, the search scope is limited to images previously submitted by the specified state or territory (i.e., individuals previously arrested in the designated location(s)). The GEO selection allows users to further narrow file penetration and may result in candidates being returned which would ordinarily be dropped due to low scores. Users are always encouraged to perform a second search with GEO omitted, if a GEO filtered search is not successful.

NAM 2.018 Name

This alphabetic and special character field contains the name(s) of the subject. The traditional encoding format shall be the surname followed by a comma, followed by the given names, which are separated by a space. ~~Part IV of the NCIC Code Manual Personal Descriptors within the NCIC Code Manual~~ describes in greater detail the manner in which each name is to be entered. Hyphens, commas, and spaces are allowed as special characters. Numerals are not allowed. Special values of NAM to be entered in cases where the subject's name is not known are:

~~**NAM1 2.2001 Name One (Future Capability)**~~

~~This alpha-special character field represents the name of foremost importance when identifying a subject, such as a surname or family name, or an only name used in a single name culture. The maximum length of the NAM1 field is 50 characters.~~

~~**NAM2 2.2002 Name Two (Future Capability)**~~

~~This alpha-special character field represents the name of second most importance when identifying a subject, such as given name. The maximum length of the NAM2 field is 50 characters.~~

~~**NAM3 2.2003 Name Three (Future Capability)**~~

~~This alpha-special character field represents the name of third most importance when identifying a subject, such as "middle name," village, or tribal name. The maximum length of the NAM3 field is 50 characters.~~

~~**NAM4 2.2004 Name Four (Future Capability)**~~

~~This alpha-special character field represents the name of fourth most importance when identifying a subject, such as a tribal or village name. The maximum length of the NAM4 field is 50 characters.~~

~~**NAM5 2.2005 Name Five (Future Capability)**~~

~~This alpha-special character field represents the name of second most importance when identifying a subject, such as a tribal or village name. The maximum length of the NAM5 field is 50 characters.~~

RBC 2.2065 Rap Back Category

[Unchanged text not included here for brevity]

Table 27 RBC Values Table

Rap Back Category	Code	Purpose Code
Firearms	F	F
Volunteer, Child Care/School Employee, Non-Criminal Justice Employment and Licensing	I	I
Criminal Justice Employment	J	J
Criminal Justice Investigative	CI	C
Criminal Justice – Supervision	CS	C

Security Clearance Information Act	S	S
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RBMI 2.2039 Rap Back Maintenance Indicator

[Unchanged text not included here for brevity]

Table 28 RBMI Values Table

Code Value	Format Description
R	Replace Rap Back Subscription data on file with that provided in the request
D	Delete Rap Back subscription data provided in request that matches what is on file
A	Append Rap Back subscription data provided in request to that on file
C	Cancel the Rap Back subscription
N	Renew the Rap Back subscription (Currently not being used)
U	Un-cancel a cancelled Rap Back subscription

RBST 2.2071 Rap Back Subscription Term (Civil Subscriptions Only)

~~This field is an optional field as there are currently no fees associated with Rap Back Services. If fees were to be reinstated this would then be used to indicate the Length of the Term of a Rap Back Subscription; during which time no additional fee will be charged for the Subscriber to validate their authority to subscribe to the individual and “extend” the subscription. Available Subscription Terms are 2, 5, or Lifetime. Values for this field must be chosen from the table below.~~

Table 30 RBST Values Table – Currently Not Used

RBST Code Value	Format Description
2	Two year subscription term
5	Five year subscription term
L	Lifetime subscription term

RBTD 2.2049 Rap Back Term Date

~~The date identifying the end of the two year or five year fee paid by the Rap Back Subscriber. It is added to the subscription by NGI based upon the Rap Back Subscription Term field value in the Rap Back Subscription Request. This date indicates when a new fee must be paid to continue the subscription. This date is separate from the Expiration Date and functions in relation to the Expiration Date as described in the most recent version of the NGI Program Rap Back Service Non-Criminal Justice Policy and Implementation Guide.~~

The Rap Back Subscription Term will not be used at this time, as there are currently no fees associated with Rap Back Services. The field remains available in case Rap Back fees are reinstated.

~~SAN 2.099 State Arrest Number (Future Capability)~~

~~This field contains a unique arrest number assigned by the state to a criminal subject. The SAN is an optional element that may assist in matching the submitted disposition data to the correct court cycle. If~~

~~present in the submission, this field should be returned in the response. Any printable 7-bit ASCII character with the exception of a period is acceptable. Embedded spaces are not permitted. SAN must not begin with a space.~~

Table C-1 Field Edit Specifications for Type-2 Elements

Field Number	Identifier	Field Name	Character	Field Size (not including Character Separators)		Occurrences		Example	Comments/Special Characters
				Min	Max	Min ¹	Max		
2.009	OCA	ORIGINATING AGENCY CASE NUMBER	ANS	1	20		1	2.009:Q880312465{GS}	Any printable 7-bit ASCII character with the exception of the period is allowed
2.012	LCN	FBI LATENT CASE NUMBER	ANS	11	11		1	2.012:MX-12345678{GS}	The only special character allowed is a hyphen.
2.2018	DNAC	DNA IN CODIS FLAG	A	1	1		1	2.2018:N{GS}	
2.2028	BID	BIOMETRIC IMAGE DESCRIPTION	SET				1000		
A	SI	SUBJECT IDENTIFIER	ANS	1	50	1	1	2.2028:12AN43215689{US}1{US}123456{US}09{US}{US}{US}{GS}	NCIC SMT codes only allow a space as a special character.
B	IMT	IMAGE TYPE	N	1	2	0	1		
C	BSI	BIOMETRIC SET IDENTIFIER	N	4	24	0	1		
D	FNR	FINGER NUMBER REQUESTED	N	2	2	0	1		
E	PPD	PRINT POSITION DESCRIPTOR	AN	5	5	0	1		
F	POS	SUBJECT POSE	A	1	1	0	1		
G	SMT	NCIC SMT CODE	AS	3	10	0	1		
2.2032	ATR	AUDIT TRAIL RECORD	SET				100		
A	ORI	ORIGINATING AGENCY IDENTIFIER	AN	9	9	1	1	2.2032:NY0303000{US}20130514{US}SRL{US}1023456{US}1{US}06{US}{US}{US}{RS}NY0303000{US}20130518{US}SRB{US}3065432{US}9{US}{US}{US}F{US}{GS}	NCIC SMT codes only allow a space as a special character.
B	DAT	DATE OF DISSEMINATION	N	8	8	1	1		
C	TOT	TOT OF DISSEMINATION	A	3	16	1	1		
D	BSI	BIOMETRIC SET IDENTIFIER DISSEMINATED	N	4	24	0	1		
E	IMT	IMAGE TYPE DISSEMINATED	N	1	2	0	1		
F	FNR	FRICTION RIDGE POSITION REQUESTED	N	2	2	0	1		
G	PPD	PRINT POSITION DESCRIPTION	AN	5	5	0	1		
H	POS	SUBJECT POSE	A	1	1	0	1		
I	SMT	NCIC SMT CODE	AS	3	10	0	1		

¹ For shaded cells in the minimum occurrences column, please reference Tables D-1, E-1, and I-1 for field occurrences.

Field Number	Identifier	Field Name	Character	Field Size (not including Character Separators)		Occurrences		Example	Comments/Special Characters
				Min	Max	Min ¹	Max		
2.2033	CNL	CANDIDATE INVESTIGATIVE LIST	SET				297	2.2033:123456789{US}DOE, JOHN{US}12345{US}9{US}{US} {US}2000{US}25{US}1{US}01{U S} {US}F{US}{GS}	NAM allows commas, hyphens, and spaces as special characters. NDR value list, separated by comma. Note Field allows aAny printable 7-bit ASCII character is allowed . NCIC SMT codes only allow a space as a special character.
A	SI	SUBJECT IDENTIFIER	ANS	1	50	1	1		
B	NAM	MASTER NAME	AS	3	50	0	1		
C	BSI	BIOMETRIC SET IDENTIFIER	N	4	24	0	1		
D	IMT	IMAGE TYPE	N	1	2	0	1		
E	FGP	FRICTION RIDGE GENERALIZED POSITION	N	2	2	0	1		
F	PPD	PRINT POSITION DESCRIPTOR	AN	5	5	0	1		
G	MSC	MATCH SCORE	N	1	6	0	1		
H	BIA	BIOMETRIC IMAGE AVAILABLE	N	1	2	0	1		
I	NDR	NAME OF DESIGNATED REPOSITORY	NS	1	400	0	1		
J	IDC	INFORMATION DESIGNATION CHARACTER	N	2	2	0	1		
K	NOT	NOTE FIELD	ANS	1	1000	0	1		
L	POS	SUBJECT POSE	A	1	1	0	1		
M	SMT	NCIC SMT CODE	AS	3	10	0	1		
2.2039	RBMI	RAP BACK MAINTENANCE INDICATOR	A	1	1		1	2.2039:R{GS}	Acceptable values are R, D, A, C, and U. Value of N is currently not being used.
2.2049	RBTD	RAP BACK TERM DATE	N	8	8		1	2.2049:19940930{GS}	This field is not being used as there are no fees associated with Rap Back Services at this time

¹ For shaded cells in the minimum occurrences column, please reference Tables D-1, E-1, and I-1 for field occurrences.

Field Number	Identifier	Field Name	Character	Field Size		Occurrences		Example	Comments/Special Characters
				(not including Character Separators)					
				Min	Max	Min ¹	Max		
2.2061	BIE	BIOMETRIC IMAGE ENROLLMENT	SET				61	2.2061:123456789{US}9{US}F{US}{GS}	POS is populated when IMT=9 SMT is populated when IMT=10. . NCIC SMT codes only allow a space as a special character.
A	BSI	BIOMETRIC SET IDENTIFIER	N	4	24	1	1		
B	IMT	IMAGE TYPE	N	1	2	1	1		
C	POS	SUBJECT POSE	A	1	1	0	1		
D	SMT	SCARS, MARKS, AND TATTOOS	AS	3	10	0	1		
2.2072	POC	POINT OF CONTACT	SET				1	2.2072:Uncle Sam Biometric Support Center{US}304-555-1212{GS}	NAM allows commas, hyphens, and spaces as special characters.
A	NAM	NAME	AS	3	50		1		
B	PHONE	PHONE NUMBER	ANS	10	30		1		

¹ For shaded cells in the minimum occurrences column, please reference Tables D-1, E-1, and I-1 for field occurrences.

Appendix D: Summary of Logical Record Layouts for Type-2 Identification and Verification Transactions

Table D-1 Summary of Field Lists for Identification and Verification Transactions

Tag Element	SRE
2.2018 DNAC	0..1

Appendix I: Summary Of Logical Record Layouts For Type-2 Data Management Transactions

Table I-1 Summary of Field Lists for Data Management Transactions

Tag Element	RBSCVL
2.2071 RBST	0..1

Appendix L: Summary Tables

Table L-1 Complete Element Cross-Reference List by Tag Number

EBTS Tag Number	Element ID	Element Name
1.016	APS	APPLICATION PROFILE SPECIFICATIONS
1.017	ANM	AGENCY NAMES
2.012	LCN	FBI LATENT CASE NUMBER
2.013	LCX	LATENT CASE NUMBER EXTENSION
2.094	CCN	COURT CASE NUMBER (FUTURE CAPABILITY)
2.099	SAN	STATE ARREST NUMBER (FUTURE CAPABILITY)
2.2001	NAM1	NAME ONE (Future Capability)
2.2002	NAM2	NAME TWO (Future Capability)
2.2003	NAM3	NAME THREE (Future Capability)
2.2004	NAM4	NAME FOUR (Future Capability)
2.2005	NAM5	NAME FIVE (Future Capability)
2.2018	DNAC	DNA IN CODIS FLAG (Future Capability)
4.001	LEN	LOGICAL RECORD LENGTH
4.002	IDC	INFORMATION DESIGNATION CHARACTER
4.003	IMP	IMPRESSION TYPE
4.004	FGP	FRICTION RIDGE GENERALIZED POSITION
4.005	ISR	IMAGE SCANNING RESOLUTION
4.006	HLL	HORIZONTAL LINE LENGTH
4.007	VLL	VERTICAL LINE LENGTH
4.008	GCA	COMPRESSION ALGORITHM
4.009	IMG	IMAGE DATA
9.180 - 9.225	RSV UDF	OTHER FEATURE SETS - USER-DEFINED FIELDS

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9.363	RRC	EFS RELATIVE ROTATION OF CORRESPONDING PRINT
9.372	EFS	EFS SKELETONIZED IMAGE
9.901	ULA	UNIVERSAL LATENT ANNOTATION
9.902	ANN	ANNOTATION INFORMATION
9.903	DUI	DEVICE UNIQUE IDENTIFIER
9.904	MMS	MAKE/MODEL/SERIAL NUMBER
10.993	SAN	SOURCE AGENCY NAME
13.993	SAN	SOURCE AGENCY NAME
14.025	ASEG	ALTERNATE FINGER SEGMENT POSITION(S)
14.026	SCF	SIMULTANEOUS CAPTURE
14.027	SIF	STITCHED IMAGE FLAG
15.018	AMP	AMPUTATED OR BANDAGED
15.993	SAN	SOURCE AGENCY NAME

Appendix M: Transaction Messages

Table M-1 Transaction Messages

Code	Condition for Message	Description	Count	Insert #1	Insert #2	Insert #3
L0032	Duplicate DOA and DOS	Cannot update subject record because DOA %1 and corresponding DOS already exist. Refer to FBI Number %2.	2	DOA	UCN	
L0042	No Matching Court Data	Cannot update this event – no data can be deleted when no matching court data is found.	0			
L0176	Record No Longer on File - Expunged	Pointer for submitting state has been expunged	0			
L0181	Document Reject - Other	Document Rejected. See %1 %2 %3	0-3	Free Text	Free Text	Free Text
L0182	Menard vs Saxbe Expungement	Event specified for update has been expunged per Menard vs Saxbe criteria	0			
M0056	Facial Photo – Modified multiple subjects	The Photo Facial Biometric %1 for UCN %2 included multiple subjects and has been modified to include one subject.	2	BSI	UCN	
M0057	Facial Photo – Multiple subjects not enrolled	The Photo Facial Biometric for UCN %1 included multiple face/images and has not been enrolled.	1	UCN		

Appendix N: Descriptors And Field Edit Specifications For Type-14 Logical Records

ASEG 14.025 Alternate Finger Segment Position(s)

This optional field is an alternate approach to describing the locations for each of the image segments of

each of the individual fingers within a flat image containing the capture of four (or more if extra digits exist on the hand) simultaneous fingers or two simultaneous thumbs. Where SEG, 14.021, uses a straight box for this segmentation, ASEG allows for more of a polygon shape of segmentation. For submitting this field for NGI/CJIS, the user must include exactly 4 vertices of the polygon in sequential order with the first vertex being of the upper left point and continuing in a clockwise manner. The vertices must be within the bounds of the flat image and no two vertices may occupy the same location. The polygon shall be a four-cornered shape with no sides crossing.

Appendix O: Place Of Birth (POB) Code Table

Appendix O contains the codes for Place of Birth (POB 2.020), Citizenship (CTZ 2.021) and Geographic Area of Search (GEO 2.044) fields. ~~These codes are taken from the State and Country Data Codes within the NCIC Code Manual.~~ The ‘CTZ’ contains an asterisk (*) for those codes that are valid for usage in the CTZ 2.021 field. All codes are valid for usage in the POB 2.020 field and the GEO 2.044 field. The “DATE AHEAD FLAG” indicates those codes where the local date may be a day ahead of North American time zones.

Appendix AC: ACRONYMS

Acronym	Description
BDB	Biometric Data Block
BDQ	Biometric Data Quality
BFO	BDB Format Owner
BFT	BDB Format Type
BIR	Biometric Information Record
BTY	Biometric Type
CBEFF	Common Biometric Exchange File Format
CCN	Court Case Number
CI	Criminal File Justice Investigative
CR	Criminal File
CSN	Candidate Sequence Number
ECL	Eye Color
EFTS	Electronic Fingerprint Transmission Specification
FID	Feature Identifier
FIDR	Foreign Information Direct Route
GUI	Global Unique Identifier
HDV	CBEFF Header Version
IBIA	International Biometrics Industry Association
ICN	IAFIS Control Number
IdHS	Identity History Summary
INCITS	International Committee for Information Technology Standards
IPC	Image Property Code
IQM	Image Quality Metric
IQS	Image Quality Score Specification
LPU	Latent Print Unit
MDD	Message Data Dictionary
MFC	Message Field Code

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MFD	Method of Feature Detection
MNC	Maximum Number of Candidates
MPS	Major Case Print Segment
MTD	Minutiae Type Designation
N-FACS	National Fingerprint-Based Applicant Check Study
NFIQ	NIST Fingerprint Image Quality
NRC	Number of Required Candidates
OFR	Originating Fingerprint Reading System
PAX	Photo Acquisition Source
PNG	Portable Network Graphics
PPE	Palm Print Enrollment Request
PPR	Palm Print Enrollment Response
RAE	Rotation Angle of Eye
RAU	Rotation Uncertainty
RFC	Request for Change
RMS	Root Mean Squared
SAN	State Arrest Number
SFP	Subject Feature Points
SOR	Source Representation
SOR	Want or Sexual Offender Registry
TBD	To Be Determined
TBR	To Be Resolved
TCD	Tenprint Capture Date
UDI	User Defined Image
UK	United Kingdom
US-VISIT	Visitor and Immigrant Status Indicator Technology
UTD	User Defined Testing Date
V	Version

Section 3 – Aggregate List of Changes

This section records the changes made for EBTS TOU 1 through TOU 9. The implementation dates for each TOU are as follows:

TOU	Date
10.0.1	2/5/14
10.0.2	6/2/14
10.0.3	9/30/14
10.0.4	3/13/15
10.0.5	6/13/15
10.0.6	6/20/16
10.0.7	12/5/16
10.0.8	9/30/17
10.0.9	5/22/18

Section	TOU Number	Change
1.1	10.0.8	Updated Background
1.2	10.0.9	Added wording about ASCII characters
1.4	10.0.9	Added paragraph about EBTS Compliance Tool Suite
1.8	10.0.4	Added new compression references
	10.0.7	Added new reference
	10.0.8	Updated link for ANSI/NIST-ITL reference
	10.0.9	Added Rap Back reference
2	10.0.8	Updated second paragraph
3.1.1	10.0.9	Removed MAPC TOT from EBTS
3.1.1.15 MAPC	10.0.9	Removed MAPC TOT from EBTS
3.1.1.6 EMUF	10.0.1	Updated second paragraph
3.1.1.9 FIDR	10.0.1	Updated first paragraph
3.1.1.19 Rap Back Subscription Request	10.0.9	Updated first paragraph
3.1.1.21 SRE	10.0.8	Updated first paragraph
3.1.1.22 ERRT	10.0.8	Added new section (Future Capability)
3.1.2.1 LFS	10.0.8	Updated LFS header
3.1.3.1 RPIS	10.0.1	Updated second paragraph
3.1.3.2 RPISR	10.0.8	Updated RPISR description
3.1.4	10.0.7	Corrected ERRT name
3.2.2 SRE	10.0.7	Corrected Table 3 reference in text
3.3.1	10.0.5	Updated Response TOT list for CPR
3.3.1.1 IRQ	10.0.1	Updated first paragraph Added paragraph after the first paragraph

Section	TOU Number	Change
	10.0.5	Updated third paragraph
	10.0.7	Corrected name for ERRI in third paragraph
	10.0.8	Updated fourth paragraph
3.3.1.3 IRR	10.0.1	Updated first paragraph
3.3.1.4 ISR	10.0.1	Updated first paragraph
3.3.2	10.0.3	Updated Response Transaction list
3.3.2.1 BATQ	10.0.3	Updated section
3.3.2.2 BATR	10.0.3	Updated section title
3.4.2	10.0.5	Updated third paragraph
	10.0.7	Added "CMF Search?" to "ULF Flag Set?" Decision point in Search row in Figure 6
3.4.3	10.0.7	Corrected ERRA transaction name
3.4.4.2 TXTSRCH	10.0.1	Updated first paragraph Added second and third paragraphs, describing TOT use
	10.0.9	Updated first paragraph
3.4.4.3 FRS	10.0.5	Updated first paragraph
	10.0.6	Added text to end of first paragraph
3.4.4.4 SRB	10.0.1	Replaced second paragraph
3.4.5.1 IIIS	10.0.4	Updated sentence
3.4.6	10.0.3	Reordered sections to conform with Response Transaction list Corrected TOT name for EQHR and EQRR
3.4.6.3 EQER	10.0.3	Restored EQER section
3.4.6.4 EQRR	10.0.5	Updated first paragraph
3.4.6.5 ERRR	10.0.5	Updated first paragraph and added second paragraph
	10.0.7	Updated first paragraph
3.5	10.0.7	Updated first paragraph
3.5.1 SPN	10.0.1	Updated first paragraph
3.5.3 RBRN	10.0.9	Updated RBRN description
3.5.6 ULM	10.0.1	Updated second paragraph
	10.0.5	Updated third paragraph
3.6.3 BDEC	10.0.2	Updated section
	10.0.3	Updated second paragraph
3.6.5 BDEL	10.0.1	Updated third paragraph
3.6.11 DSPE	10.0.9	Updated DSPE title and paragraph

Section	TOU Number	Change
3.6.12 DSPR	10.0.9	Updated DSPR description
3.6.13 FIS	10.0.6	Updated first paragraph
	10.0.8	Updated first paragraph
3.6.14 FISR	10.0.1	Updated first paragraph
	10.0.6	Updated first paragraph
3.6.15 SPMNT	10.0.1	Updated second paragraph
3.6.20 RBSCVL	10.0.9	Updated RBSCVL description
	10.0.9	Removed Rap Back Code value “F” from Rap Back Civil Category Code Values Table
3.6.22 RBMNT	10.0.9	Updated RBMNT Section Title and third paragraph
	10.0.9	Updated Rap Back Replace & Renew descriptions
3.6.23 RBMNT	10.0.3	Updated first paragraph
3.8.2	10.0.4	Updated first and second paragraph
3.8.4	10.0.9	Corrected plain thumb sizes in Recommended Sizes for Fingerprint Table
Appendix A	10.0.3	Restored Friction Ridge Investigation Search – Latent rows
	10.0.4	Updated Table A-1
	10.0.9	Removed second paragraph
		Removed MAPC from Table A-2
Appendix B	10.0.1	Added 1.011 NSR
	10.0.3	Updated 1.013 DOM
	10.0.7	Corrected description for 1.012 NTR
Appendix C	10.0.1	Relabeled column headings and table name, also reversed columns for Table 11 BID Values Table Updated 2.014 FBI Data Dictionary definition Updated 2.037 RFP Data Dictionary definition Updated 2.079 NCR Data Dictionary definition Updated 2.084 AMP Data Dictionary code table Updated 2.2010 NIR Data Dictionary definition Updated 2.2032C TOT of Dissemination for Max Length 2.2058 SMD spelling correction in SMI Values Table Updated 2.2069B RBT for Min Occurrences Updated 2.2069C RBEI for Min Occurrences
	10.0.2	Updated 2.019 AKA Data Dictionary definition Updated 2.038 DPR Data Dictionary definition Added 2.046 DOS to Data Dictionary Added 2.046 DOS to Table C-1 Updated 2.088 NOT Data Dictionary definition Updated the data type for fields 2.2028G SMT, 2.2032I SMT, 2.2033M SMT and 2.2061D SMT

Section	TOU Number	Change
	10.0.3	Updated 2.098 NDR Values Table Updated 2.2020 RBSL
	10.0.4	Updated section 1.1 Updated 2.051 CSL definition Updated 2.2063 RBOO definition
	10.0.5	Updated 2.083 ULF name and definition Updated Table C-1 for 2.2064A RBFN and 2.2064B RBFT Updated Table C-1 for 2.071 ACN Example Updated Table C-1 for 2.083 ULF
	10.0.6	Updated 2.046 DOS definition Corrected IDENT description in Table 23: NDR Values Table
	10.0.7	Updated Table 17 IFS Values Table
	10.0.8	Updated descriptions for 2.071 ACN, 2.019 AKA, 2.084 AMP, 2.047 ASL, 2.2031 BIA, 2.2073 BIL, 2.064 CAN, 2.094 CCN, 2.051 CSL, 2.056 ICO, 2.017 MNU, 2.018 NAM, 2.009 OCA, 2.037 RFP, 2.099 SAN, 2.2007 SDOB, 2.015 SID, 2.055 SLE, 2.2008 SNAM, and SMT (2.026, 2.2028G, 2.2032I, 2.2033M, 2.2061D) Updated comments for 2.015 SID, 2.018 NAM, 2.019 AKA, 2.026 SMT, 2.037 RFP, 2.055 SLE, 2.064 CAN, and 2.2008 SNAM in Table C-1 Updated maximum occurrence for 2.047 ASL and 2.051 CSL in Table C-1 Updated special characters for 2.071 ACN in Table C-1
	10.0.9	Updated Section 1.0 to clarify allowed ASCII characters Added footnote to Table C-1 Edited descriptions for 2.064 CAN, 2.051 CSL, 2.044 GEO, and 2.018 NAM Removed 2.094 CCN and 2.099 SAN from EBTS Removed 2.2001 NAM1, 2.2002 NAM2, 2.2003 NAM3, 2.2004 NAM4, and 2.2005 NAM5 from EBTS Removed Future Capability reference for 2.2018 DNAC and updated description Removed Rap Back Code value “F” from RBC Values Table Updated Rap Back Code “N” in RBMI Values Table Updated 2.2071 RBST description and values Updated description for 2.2049 RBTD Clarified special characters in Table C-1 for 2.009 OCA, 2.012 LCN, 2.2028G SMT, 2.2032I SMT, 2.2033 CNL, 2.2061D SMT, and 2.2072A NAM Added 2.2018 DNAC to Table C-1 Updated Comments/Special Characters in Table C-1 for 2.2039 RBMI and 2.2049 RBTD

Section	TOU Number	Change
Appendix D	10.0.1	Updated 2.017 MNU for FDSP Updated 2.084 AMP for AMN, CAR, CNA, CPDR, CPNU, DEK, DEU, DOCE, EMUF, FANC, FAUF, FDSP, FIDR, FNDR, FVR, MAP, MPR, NFUE, NFUF, NNDR, and RPIS Added 2.098 NDR to FIDR
	10.0.2	Removed 2.096 RPR, 2.098 NDR, 2.2037 ESI from DOCE Removed 2.096 RPR, 2.098 NDR, 2.2015 RBXD, 2.2020 RBR, 2.2037 ESI, 2.2040 RBT, 2.2062 RBNF, 2.2063 RBOO, 2.2064 RBUD, 2.2065 RBC, 2.2067 RBDI, 2.2070 RBATN, 2.2071 RBST from EMUF Removed 2.2007 SDOB and 2.2008 SNAM from ERRT Updated section introduction
	10.0.6	Added field 2.046 DOS to CPNU and FIDR
	10.0.7	Removed 0..1 occurrence for field 2.2067 RBDI for FANC, FAUF, FNDR, MAP, NFUE, NFUF, and NNDR Removed 0..1 occurrence of field 2.2071 RBST for CAR, CPDR, and CPNU
	10.0.8	Updated occurrence for 2.047 ASL for CAR, CNA, CPDR, CPNU, and LFS Updated occurrence for 2.051 CSL for CAR, CNA, CPDR, CPNU, and FDSP Updated occurrence for 2.2007 SDOB for ERRT (Future Capability) Updated occurrence for 2.2008 SNAM for ERRT (Future Capability) Added superscript for 2.051 CSL occurrence for FDSP Added new reference notes in Appendix D – Reference Notes
	10.0.9	Added 2.2018 DNAC to SRE in Table D-1
Appendix E	10.0.1	Updated 2.014 FBI for IRR Updated 2.018 NAM for EQHR and EQRR Updated 2.021 CTZ for EQHR Updated 2.037 RFP from UULD Updated 2.073 CRI for EHRR, EQER, EQHR, EQRR and ERRR Updated 2.075 ERS for RBN Updated 2.084 AMP for SRT Updated 2.084 AMP for TPIS and TPRS Updated 2.098 NDR for ISR Updated 2.2033 CNL for SRB Updated 2.026 SMT for TXTSRCH Updated 2.2058 SMD for TXTSRCH Updated 2.2059 TCL for TXTSRCH
	10.0.2	Added 2.046 DOS to CPR and PRR Removed 2.079 NCR from TPRR Updated section introduction
	10.0.6	Updated 2.073 CRI for FRS
	10.0.8	Added 2.060 MSG occurrence for RBRPTR

Section	TOU Number	Change
Appendix F	10.0.1	Updated section 4.10.4 Requirement
	10.0.4	Update note under Table F-5 Update web site reference under Table F-5
	10.0.6	Updated Table F-2 for minimum modulation for 500 ppi scanner to 2 cy/mm
	10.0.7	Added text in Section 4.10.6 that points to new reference Updated FAP 50 platen size in Table F-5 Added new document in References Updated Mobile ID version in References
	10.0.8	Added new sections 2.7 and 4.11 Updated Image Quality for Mobile ID
Appendix H	10.0.7	Corrected sentence in second paragraph
Appendix I	10.0.1	Removed 2.006 ATN from XACT and XACTR Updated 2.014 FBI for PDR Removed 2.055 SLE from SRNR Added 2.073 CRI, 2.2100 SED, 2.2101 SST, 2.2102 RSC, 2.2103 STT, and 2.2104 SRA to SRNR Added 2.073 CRI and 2.075 ERS to SRNR Updated 2.084 AMP for FIS Updated 2.2035 EVI for DSPR
	10.0.2	Added 2.046 DOS to PDR and CPD Updated section introduction
	10.0.8	Updated occurrence for 2.047 ASL for SRNR Updated occurrence for 2.051 CSL for DSPE and SRNR Added superscript for 2.051 CSL occurrence for DSPE Added new footnote to Table I-1
	10.0.9	Updated 2.2071 RBST for RBSCVL in Table I-1
Appendix J	10.0.1	Updated table heading for Table 45 Updated Table 46 Update table heading for Table 47
Appendix K	10.0.1	Added sentence to end of section
Appendix L	10.0.1	Updated FIS for T17 Updated FIDR for T4 and T14 Updated IRR for T9 and T14 Updated IRQ Response TOTs
	10.0.2	Added 2.046 DOS to Table L-1
	10.0.4	Corrected transaction name for EHRR Updated IIDS for T10 and T17 Updated IRR for T17 Updated SRB for T17
	10.0.5	Updated Table L-1 for 2.083 ULF Updated Table L-4 for CPR

Section	TOU Number	Change
	10.0.7	Added ERRB to Table L-3
	10.0.8	Added 14.018 AMP to Table L-1 Updated footnote for Table L-3
	10.0.9	Removed Future Capability reference for 2.2018 DNAC in Table L-1 Added missing fields to Table L-1 Removed 2.094 CCN and 2.099 SAN from Table L-1 Removed 2.2001 NAM1, 2.2002 NAM2, 2.2003 NAM3, 2.2004 NAM4, and 2.2005 NAM5 from Table L-1
Appendix M	10.0.1	Updated messages in Table M-1 based on Operational needs Added Error Class Key to Table M-1
	10.0.2	Added A0015 to Message Table Added L0031 to Message Table Added M0033 to Message Table Added M0051 to Message Table Added M0052 to Message Table
	10.0.3	Added footnote
	10.0.4	Added L0174 and L0179 to Message Table
	10.0.7	Removed L0174 code from Table M-1 Added error message codes RB030 and RB031 to Table M-1
	10.0.8	Updated error message code RB019 Added error message code RB029 Updated error message code L0154 Added error message code M0055
	10.0.9	Added error message code L0032 Added new error message codes L0042, L0176, L0181, L0182, M0056, and M0057
Appendix N	10.0.2	Updated 14.015 PPC Data Dictionary definition
	10.0.8	Added fourth paragraph to introduction
	10.0.9	Added field 14.025 ASEG to Appendix N
Appendix O	10.0.1	Corrected appendix introduction
	10.0.4	Updated appendix introduction
	10.0.6	Corrected CTZ value for four codes in POB Code Table Corrected FR code description
	10.0.7	Added South Sudan to Table O-1
	10.0.9	Updated first paragraph
Appendix P	10.0.4	Updated section introduction text, sixth paragraph Updated web address for Palm Print Capture Guide Added note to Table P-2 Friction Ridge
Appendix AC	10.0.4	Removed acronyms IID, IIE, IIER, IIR and IRD Corrected EHRR
	10.0.5	Updated acronym ULF
	10.0.6	Corrected description for IIIS

Section	TOU Number	Change
	10.0.7	Added acronym CMF Corrected DSPR Description Corrected EHRR Description Added ERRR Added acronym IFS Corrected IRR Description
	10.0.8	Added acronym AFV Added acronym AUD Added acronym CCA Added acronym DOB Added acronym DoD Added acronym DOD Added acronym ESI Added acronym FSI Added acronym ICO Added acronym LESC Updated acronym LFS Added acronym MOU Added acronym NFS Added acronym NGI Added acronym QC Added acronym SCH Added acronym TP Added acronym TPTP Added acronym WAN
	10.0.9	Updated acronyms in Appendix AC