STANDARDS CHANGES CATALOG (SCC)

SCC NUMBER: SCC #167

CHANGE PROPOSAL TITLE: Update TABLE XVIII, Appendix B, 47001C, to fields Version and FPI for message version.

ORIGINATOR and ADDRESS: ChingLan Lin
Northrop Grumman MS
17 Christopher Way
Eatontown, NJ 07724
chinglan.lin@mail1.monmouth.army.mil
732-532-9874 DSN: 992

ORIGINATOR'S INTERNAL NUMBER:

AFFECTED DOCUMENT: MIL-STD-2045-47001C, APPENDIX B.

PRECEDENCE: Routine

RECOMMENDATIONS:

RECORD OF PROCESSING

DATE:	ACTION:
1 Mar 04	Proposal/Work Item/Draft
30 Mar 04	Rev 1; Approved for 47001C

1. STATEMENT OF THE PROBLEM:
The TABLE XVIII in Paragraph B.2.2 is not illustrated up to date.

2. PROBLEM ANALYSIS:
The field value (1) for old version(B) of Application header used to illustrate the construction of the Application Layer PDU in TABLE XVIII for this new version (C) of Application header is confusi~~o~~ng.

3. PROPOSED SOLUTION:

Change TABLE XVIII and delete TABLE XIX to reflect this version as follows:

TABLE XVIII. ~~TABLE XVIII.~~ Example construction of application layer PDU (

FIELD				OCTET BUFFER/STREAM			
TITLE	LENGTH (Bits)	VALUE (Dec)	VALUE (Binary) MSB 2^n LSB 2^0	FIELD FRAGMENTS MSB 2^7 LSB 2^0	OCTET VALUE (Binary) MSB 2^7 LSB 2^0	OCTET VALUE (Hex)	OCTET NO
Application Header							
Version	4	~~1~~2	~~0001~~0010	~~XXXX0001~~XXXX0010			
FPI	1	0	0	XXX0XXXX			
Data Compression Type	2	NA					
GPI for Originator Address	1	1	1	XX1XXXXX			
FPI for URN	1	1	1	X1XXXXXX			
URN	24	207	000000000000000011001111	1XXXXXXX	~~11100001~~11100010	~~E1~~E2	0
				01100111	01100111	67	1
				00000000	00000000	00	2
				X0000000			
FPI for Unit Name	1	1	1	1XXXXXXX	10000000	80	3
Unit Name (Note 1)	448 max	UNITA					
	7	85	1010101	X1010101			
	7	78	1001110	0XXXXXXX	01010101	55	4
				XX100111			
	7	73	1001001	01XXXXXX	01100111	67	5
				XXX10010			
	7	84	1010100	100XXXXX	10010010	92	6
				XXXX1010			
	7	65	1000001	0001XXXX	00011010	1A	7
				XXXXX100			
End of text marker (ANSI ASCII DEL)	7	127	1111111	11111XXX	11111100	FC	8
				XXXXXX11			

TABLE XVIII. ~~TABLE XVIII.~~ Example construction of application layer PDU (Continued)

FIELD				OCTET BUFFER/STREAM			
TITLE	LENGTH (Bits)	VALUE (Dec)	VALUE (Binary) MSB 2^n LSB 2^0	FIELD FRAGMENTS MSB 2^7 LSB 2^0	OCTET VALUE (Binary) MSB 2^7 LSB 2^0	OCTET VALUE (Hex)	OCTET NO
GPI for Recipient Address Group	1	1	1	XXXXX1XX			
GRI for R1	1	0	0	XXXX0XXX			
FPI for URN	1	1	1	XXX1XXXX			
URN	24	3	000000000000000000000011	011XXXXX	01110111	77	9
				00000000	00000000	00	10
				00000000	00000000	00	11
				XXX00000			
FPI for Unit Name	1	0	0	XX0XXXXX			
Unit Name	448	NA					
GPI for Information Address Group	1	0	0	X0XXXXXX			
GRI for R2	1	NA					
FPI for URN	1	NA					
URN	24	NA					
FPI for Unit Name	1	NA					
Unit Name	448	NA					
FPI for Header Size	1	0	0	0XXXXXXX	00000000	00	12
Header Size	16	NA					
GRI for R3	1	0	0	XXXXXXX0			
UMF	4	2	0010	XXX0010X			
FPI for Message Standard Version	1	~~NA~~0	0	XX0XXXXX			
Message Standard Version	4	NA					
GPI for Message Identification Group	1	1	1	~~XX1XXXXX~~X 1XXXXXX			
FAD	4	2	0010	~~10XXXXXX~~0 XXXXXXX	~~10100100~~010 00100	~~A4~~44	13
				~~XXXXXX00~~X XXXX001			
Message Number	7	1	0000001	~~000001XX~~000 01XXX	~~00000100~~000 01001	~~04~~09	14
				~~XXXXXXX0~~X XXXXX00			
FPI for Message Subtype	1	0	0	~~XXXXXX0X~~X XXXX0XX			
Message Subtype	7	NA					
FPI for File Name	1	0	0	~~XXXXX0XX~~X XXX0XXX			
File Name	448	NA					
FPI for Message Size	1	0	0	~~XXXX0XXX~~X XX0XXXX			
Message Size	20	NA					
Operation Indicator	2	1	01	~~XX01XXXX~~X 01XXXXX			

TABLE XVIII. ~~TABLE XVIII.~~ Example construction of application layer PDU (Continued)

FIELD				OCTET BUFFER/STREAM			
TITLE	LENGTH (Bits)	VALUE (Dec)	VALUE (Binary) MSB 2^n LSB 2^0	FIELD FRAGMENTS MSB 2^7 LSB 2^0	OCTET VALUE (Binary) MSB 2^7 LSB 2^0	OCTET VALUE (Hex)	OCTET NO
Retransmit Indicator	1	0	0	~~X0XXXXXX~~0XXXXXXX	00100000	20	15
Message Precedence Codes	3	2	010	~~0XXXXXXX~~XXXX010	~~00010000~~	~~10~~	~~15~~
				~~XXXXXX01~~			
Security Classification	2	0	00	~~XXXX00XX~~XXX00XXX			
FPI for Control/Release Marking	1	0	0	~~XXX0XXXX~~XX0XXXXX			
Control/Release Marking	224	NA					
GPI for Originator DTG	1	1	1	~~XX1XXXXX~~X1XXXXXX			
Year	7	~~96~~2	~~1100000~~0000010	~~0~~0XXXXXXX	~~00100001~~01000010	~~21~~42	16
				~~XXX11000~~XX000001			
Month	4	7	0111	~~111XXXXX~~11XXXXXX	~~11111000~~11000001	~~F8~~C1	17
				~~XXXXXXX0~~XXXXX01			
Day	5	3	00011	~~X~~X00011XX			
Hour	5	16	10000	~~0~~0XXXXXXX	~~0~~0000110~~1~~	~~06~~0D	18
				~~X~~XXXX1000			
Minute	6	27	011011	~~1~~1011XXXX	~~1~~10111000	~~DC~~B8	19
				~~X~~XXXXXX01			
Second	6	55	110111	~~X~~110111XX	11011101	DD	20
FPI for DTG Extension	1	0	0	~~0~~XXXXXXX0	~~01101110~~	~~6E~~	~~20~~
DTG Extension	12	NA					
GPI for Perishability DTG	1	0	0	~~XXXXXXX0~~XXXXX0X			
Year	7	NA					
Month	4	NA					
Day	5	NA					
Hour	5	NA					
Minute	6	NA					
Second	6	NA					
GPI for Acknowledgment Request Group	1	1	1	~~XXXXXX1X~~XXXX1XX			
Machine Acknowledge Request Indicator	1	1	1	~~XXXXX1XX~~XXX1XXX			
Operator Acknowledge Request Indicator	1	0	0	~~XXXX0XXX~~XX0XXXX			
Operator Reply Request Indicator	1	0	0	~~XXX0XXXX~~X0XXXXX			

TABLE XVIII. ~~TABLE XVIII.~~ Example construction of application layer PDU (Continued)

FIELD				OCTET BUFFER/STREAM			
TITLE	LENGTH (Bits)	VALUE (Dec)	VALUE (Binary) MSB 2^n LSB 2^0	FIELD FRAGMENTS MSB 2^7 LSB 2^0	OCTET VALUE (Binary) MSB 2^7 LSB 2^0	OCTET VALUE (Hex)	OCTET NO
GPI for Response Data Group	1	0	0	~~XX0XXXXX~~X 0XXXXXX			
Year	7	NA					
Month	4	NA					
Day	5	NA					
Hour	5	NA					
Minute	6	NA					
Second	6	NA					
FPI for DTG Extension	1	NA					
DTG Extension	12	NA					
R/C	3	NA					
FPI for CANTCO Reason Code	1	NA					
CANTCO Reason Code	3	NA					
FPI for CANTPRO Reason Code	1	NA					
CANTPRO Reason Code	6	NA					
FPI for Reply Amplification	1	NA					
Reply Amplification	350	NA					
FPI for Reference Message Data Group	1	0	0	~~X0XXXXXX~~0 XXXXXXX	00001100	0C	21
GRI	1	NA					
FPI for URN	1	NA					
URN	24	NA					
FPI for Unit Name	1	NA					
Unit Name	448	NA					
Year	7	NA					
Month	4	NA					
Day	5	NA					
Hour	6	NA					
Minute	6	NA					
Second	6	NA					
FPI for DTG Extension	1	NA					
DTG Extension	12	NA					
FAD	4	NA					
Message Number	7	NA					
GPI for Message Security Group	1	0	0 (If the GPI is zero you can't send the other GPI's)	~~0~~XXXXXXX0	~~00000110~~	~~06~~	~~21~~
Security Parameters Information	4	NA	NA				
GPI for Keying Material Group	1	NA					
Keying Material ID Length	3	NA					
Keying Material ID	64	NA					

TABLE XVIII. ~~TABLE XVIII.~~ Example construction of application layer PDU (Continued)

FIELD				OCTET BUFFER/STREAM				
TITLE	LENGTH (Bits)	VALUE (Dec)	VALUE (Binary) MSB 2^n LSB 2^0	FIELD FRAGMENTS MSB 2^7 LSB 2^0	OCTET VALUE (Binary) MSB 2^7 LSB 2^0	OCTET VALUE (Hex)	OCTET NO
GPI for Cryptographic Initialization Group	1	NA					
Cryptographic Initialization Length	4	NA					
Cryptographic Initialization	1024	NA					
GPI for Key Token Group	1	NA					
Key Token Length	8	NA					
FRI	1	NA					
Key Token	16384	NA					
GPI for Authentication Data (A) Group	1	NA					
Authentication Data (A) Length	7	NA					
Authentication Data (A)	8192	NA					
GPI for Authentication Data (B) Group	1	NA					
Authentication Data (B) Length	7	NA					
Authentication Data (B)	8192	NA					
Signed Acknowledge Request Indicator	1	NA					
GPI for Message Security Padding Group	1	NA					
Message Security Padding Length	8	NA	NA				
FPI for Message Security Padding	1	NA	NA				
Message Security Padding	2040	NA	NA				
(Zero Padding)	7	0	0000000	0000000X	00000000		~~21~~22
User Data							
Message 1	10*8						~~22-31~~23-32

Note 1: One and only one of the fields Unit Name and URN are to be present. Unit Name is shown present only for illustrative purposes, and is incorrectly shown with the URN also present.

~~TABLE XIX. Example construction of VMF message data~~
~~**(Sample message is from the VMF TIDP-TE, Reissue 6, July 200029 August 2003)**~~

~~FIELD~~				~~OCTET BUFFER/STREAM~~			
~~TITLE~~	~~LENGTH (Bits)~~	~~VALUE (Dec)~~	~~VALUE (Binary) MSB LSB 2^n 2^0~~	~~FIELD FRAGMENTS MSB LSB 2^7 2^0~~	~~OCTET VALUE (Binary) MSB LSB 2^7 2^0~~	~~OCTET VALUE (Hex)~~	~~OCTET NO~~
~~Check Fire Order Type~~	~~3~~	~~0~~	~~000~~	~~XXXXX000~~			
~~FPI~~	~~1~~	~~1~~	~~1~~	~~XXXX1XXX~~			
~~Target Number (AB0031)~~	~~28~~						
		~~65 (A)~~	~~1000001~~	~~0001XXXX~~	~~00011000~~	~~18~~	~~1~~
				~~XXXXX100~~			
		~~66 (B)~~	~~1000010~~	~~00010XXX~~	~~00010100~~	~~14~~	~~2~~
				~~XXXXXX10~~			
		~~31~~	~~00000000011111~~	~~011111XX~~	~~01111110~~	~~7E~~	~~3~~
				~~00000000~~	~~00000000~~	~~00~~	~~4~~
~~FPI (Observer ID)~~	~~1~~	~~0~~	~~0~~	~~XXXXXXX0~~			
~~URN (Observer ID)~~	~~24~~	~~NA~~					
~~GPI (Effective Time)~~	~~1~~	~~0~~	~~0~~	~~XXXXXX0X~~			
~~Effective Hour~~	~~5~~	~~NA~~					
~~Effective Minute~~	~~6~~	~~NA~~					
~~Effective Second~~	~~6~~	~~NA~~					
~~FPI~~	~~1~~	~~0~~	~~0~~	~~XXXXX0XX~~			
~~Launcher Message Sequencing Number~~	~~7~~	~~NA~~					
~~GPI (Entity ID Reference Group)~~	~~1~~	~~0~~	~~0~~	~~XXXX0XXX~~			
~~URN~~	~~24~~	~~NA~~					
~~Entity ID Serial Number~~	~~32~~	~~NA~~					
~~Day of Month~~	~~5~~	~~NA~~					
~~Hour~~	~~5~~	~~NA~~					
~~Minute~~	~~6~~	~~NA~~					
~~Second~~	~~6~~	~~NA~~					
~~(Zero Padding)~~	~~4~~	~~0~~	~~0000~~	~~0000XXXX~~	~~00000000~~	~~00~~	~~5~~

4. ALTERNATIVE SOLUTIONS: None.

5. SYSTEM CHANGES REQUIRED: None.

6. CONFIGURATION ITEM DOCUMENTATION CHANGES:
MIL-STD-~~188-220~~2045-47001C, APPENDIX B.

7. IMPACT ON INTEROPERABILITY: None.

8. IMPACT ON RELATED DOCUMENTS: None.

9. IMPLEMENTATION DATES: TBD

10. OTHER CONSIDERATIONS: None.

11. REFERENCES: None.

12. Trouble Reports (TRs) ADDRESSED IN THIS SCC: None.