

# **Region 9 Army MARS Training Topics for “phone bridge” use**

**TRAINING TOPIC** – MARS OFF-Line Transec

**SESSION INTENT** – Review of the OFF-Line Encryption/Decryption process using MARS Off-line Transec

**EXPECTED TIME TO DELIVER** – 30 Minutes

## **CONTENT OUTLINE & KEY POINTS –**

1. Using Station Manager encrypt Plaintext message to Ciphertext using MARS Off-line Transec.
2. Using Station Manager Decrypt Ciphertext into Plaintext using MARS Off-line Transec.
3. Demonstration on how to fix a corrupted MARS Off-line Ciphertext message to get a good Plaintext message.

## MESSAGE EXAMPLE

VZCZCMMM003  
M9A DE AAA9RX NR3  
R 241900Z MAY 2018 ZYG  
GR102  
BT  
UNCLAS  
N9VNBK29 G75Y9SU9 EOA3B9C6 KW BQ4XPG ??LDTK1 CPHKZ9G8 VV9JOVJ7  
89GV16W3 YUCCL1EB S9SKI1XD WMATKALD XITNZN2 INPUQ3N6 CVDDHPDC  
FUNKQCJ6 MGJN1XWE FOAAD9CD H5LSF61C 8UZZ5ESB ZIHK31E1 Y1765GAE  
YRJ1G4S2 WT1LKQUH BLHTIQR7 8KRLOPE3 ZZ5CJGAH OJPL4KF1 AMMCFUJ4  
W21FHL1E X5KLTS55 LPG3XUCF NNMADM38 G9AUTCFB 8QNGANH4 1ZOXBY16  
W53ZD8GD T8FTAIQD IUCZRTUD NA2K9VO4 QH78V6P2 EPDSX95H KYWTLAFC  
E3BR12MF ZPI3HXTE M763I243 3BTZD637 NU8CCJDG S81FZLDH UC7I38U8  
V9FHL2H1 USVQ8YK9 IXIY6N2E VAASBNSG RDTST27 BXAET3S3 DHFUXNN6  
EGPJ3YUE I2KP3EL6 9542611H RG9PKEO1 S8HDTHGF XGHNM05B 68BAX4DE  
9654XKJ8 RIHR4DTH E3PR2VZ5 TB1IW1FE PMDPLE91 O9AMK6X1 N8535AMH  
526UTP65 77LIY395 VRJN84ZC NLYMSVFE SY62QCA5 AP9F61GB MHDIT6OA  
NMQHVHDF EM89V4I1 PLD1SXJH V5Z3QFNA HT9B8XC4 LO3MWWVE GXTXEV6D  
LOARXXVA WX4RKBA7 5DBV1MFD NPTAIQSG 3PSS213D 5ZEXYT49 EVPZZQ8E  
D1TTIV9D LAWY55MF BAMOJR73 F23PD2I6 GM6YCLY5 33YLOW2F JKYBZP32  
162QCK1G H6HQ55B3 GXPKYTPE N9VNBK29

BT

NNNN

THIS SYSTEM IS AUTHORIZED FOR UNCLASSIFIED TRAFFIC ONLY

Key Handling and Status

ZYG UMK0118.HEX  
ZY11 UIK0118.HEX  
ZY12 NIK0118.HEX

Select Part 1 File  
(Highlight to Select)

#13: Decrypt Error: First and Last Group Disag Program Status

ZYG UMT0118.HEX  
ZY11 UIT0118.HEX  
ZY12 NIT0118.HEX

Select Part 2 File  
(Highlight to Select)

5 Key Index (1..6)

Controls

Encrypt Plaintext into Ciphertext

Decrypt Ciphertext into Plaintext

Plaintext

Ciphertext

```
N9VNKB29 G75Y9SU9 EOA3B9C6 KWBQ4XPG ??LDTK1 CPHKZ9G8 VV9JOVJ7
89GV16W3 YUCCL1EB S9SKI1XD WMATKALD XITNJNZ2 INPUQ3N6 CVDDHPDC
FUNKQCJ6 MGJN1XWE FOAAD9CD H5LSF61C 8UZZ5ESB ZIHK31E1 Y1765GAE
YRJ1G4S2 WT1LKQUH BLHTIQR7 8KRLOPE3 ZZ5CJGAH OJPL4KF1 AMMCFUJ4
W21FHL1E X5KLTS55 LPG3XUCF NNMADM38 G9AUTCFB 8QNGANH4 1ZOXYP16
W53ZD8GD T8FTAIQD IUCZRTUD NA2K9VO4 QH78V6P2 EPDSX95H KYWTLAFC
E3BR12MF ZPI3HXTE M763I243 3BTZD637 NU8CCJDG S81FZLDH UC7I38U8
V9PHL2H1 USVQ8YK9 IXIY6N2E VAASBNSG RDTST2T7 BXAE1TS3 DHFUXNN6
EGPJ3YUE I2KP3EL6 95426I1H RG9PKEO1 S8HDTHGF XGHNMO5B 68BAX4DE
9654XKJ8 RIHR4DTH E3PR2VZ5 TB1IW1FE PMDPLE91 O9AMK6X1 N8535AMH
526UTP65 77LIY395 VRJN84ZC NLYMSVFE SY62QCA5 AP9F61GB MHDIT6OA
NMQHVHDF EM89V4I1 PLD1SXJH V5Z3QFNA HT9B8XC4 LO3MWVVE GXTXEV6D
LOARXXVA WX4RKBA7 5DBV1MPD NPTAIQSG 3PSS213D 5ZEXYT49 EVPZZQ8E
D1TTIV9D LAWY55MF BAMOJR73 F23PD2I6 GM6YCLY5 33YLOW2F JKYBZP32
162QCK1G H6HQ55B3 GXPKYTPE N9VNKB29
```

THIS SYSTEM IS AUTHORIZED FOR UNCLASSIFIED TRAFFIC ONLY

N9VNKB29 G75Y9SU9 EOA3B9C6 KWBQ4XPG ~~XXXXXXXX~~ CPHKZ9G8 VV9JOVJ7  
89GV16W3 YUCCL1EB S9SKI1XD WMATKALD XITNJNZ2 INPUQ3N6 CVDDHPDC  
FUNKQCJ6 MGJN1XWE FOAAD9CD H5LSF61C 8UZZ5ESB ZIHK31E1 Y1765GAE  
YRJ1G4S2 WT1LKQUH BLHTIQR7 8KRLOPE3 ZZ5CJGAH OJPL4KF1 AMMCFUJ4  
W21FHL1E X5KLT55 LPG3XUCF NNMADM38 G9AUTCFB 8QNGANH4 1ZOXYB16  
W53ZD8GD T8FTAIQD IUCZRTUD NA2K9VO4 QH78V6P2 EPDSX95H KYWTLAFC  
E3BR12MF ZPI3HXTE M763I243 3BTZD637 NU8CCJDG S81FZLDH UC7I38U8  
V9FHL2H1 USVQ8YK9 IXIY6N2E VAASBNSG RDTSZT27 BXAE1TS3 DHFUXNN6  
EGPJ3YUE I2KP3EL6 95426I1H RG9PKEO1 S8HDTHGF XGHNMO5B 68BAX4DE  
9654XKJ8 RIHR4DTH E3PR2VZ5 TB1IW1FE PMDPLE91 O9AMK6X1 N8535AMH  
526UTP65 77LIY395 VRJN84ZC NLYMSVFE SY62QCA5 AP9F61GB MHDIT6OA  
NMQHVHDF EM89V4I1 PLD1SXJH V5Z3QFNA HT9B8XC4 LO3MWWVE GXTXEVD  
LOARXXVA WX4RKBA7 5DBV1MFD NPTAIQSG 3PSS213D 5ZEXYT49 EVPZZQ8E  
D1TTIV9D LAWY55MF BAMOJR73 F23PD2I6 GM6YCLY5 33YLOW2F JKYBZP32  
162QCK1G H6HQ55B3 GXPKYTPE N9VNKB29

Key Handling and Status

ZYG UMK0118.HEX  
ZY11 UIK0118.HEX  
ZY12 NIK0118.HEX

Select Part 1 File  
(Highlight to Select)

Decryption Complete; Groups: 102

Program Status

ZYG UMT0118.HEX  
ZY11 UIT0118.HEX  
ZY12 NIT0118.HEX

Select Part 2 File  
(Highlight to Select)

5 Key Index (1..6)

Controls

Encrypt Plaintext into Ciphertext

Decrypt Ciphertext into Plaintext

Plaintext

```
VZCZCMMM002
RR M9A
DE AAR9WF #0002 1441846
ZNY EEEEE
R 241846Z MAY 2018
FM MARS STATION AAR9WF
BT
UNCLAS
MSGID/GENADMIN/MARS STATION AAR9WF/2//
SUBJ/OFFLINE ENCRYPTION//
GENTEXT/REMARKS/THIS IS A SIMPLE MESSAGE SENT BY OFFLINE ENCRYPTION.
THIS METHOD IS RARELY USED BUT EXPERTISE MUST BE MAINTAINED. TO
CONFIRM YOU HAVE DECODED THE MESSAGE THE ANSWER IS
KILO//
BT
#0002
```

Ciphertext

```
N9VNKB29 G75Y9SU9 EOA3B9C6 KWBQ4XPG xxxxxxxx CPHK29G8 VV9JOVJ7
89GV16W3 YUCCL1EB S9SKI1XD WMATKALD XITNUN22 INPUQ3N6 CVDDHPDC
FUNKQCJ6 MGJN1XWE FOAAD9CD H5LSF61C 8UZZ5ESB ZIHK31E1 Y1765GAE
YRJI64S2 WT1LKQUH BLHTIQR7 8KRLOPE3 ZZ5CJGAH OJPL4KF1 AMMCFUJ4
W21FHL1E X5KLT855 LPG3XUCF NNMADM38 G9AUTCFB 8QNGANH4 1ZOXYB16
W53ZD8GD T8FTAIQD IUCZRTUD NA2K9VO4 QH78V6P2 EPDSX95H KYWTLAFC
E3BR12MF ZPI3HXTE M763I243 3BTZD637 NU8CCJDG S81FZLDH UC7I38U8
V9FHL2H1 USVQ8YK9 IXIY6N2E VAASBNSG RDTSZT27 BXAE1TS3 DHFUXNN6
EGPJ3YUE I2KP3EL6 95426I1H RG9PKEO1 S8HDTGTF XGHNMO5B 68BAX4DE
9654XKJ8 RIHR4DTH E3PR2VZ5 TB1IW1FE PMDPLE91 O9AMK6X1 N8535AMH
526UTP65 77LIY395 VRJN84ZC NLYMSVFE SY62QCA5 AP9F61GB MHDIT6OA
NMQHVHDF EM89V4I1 PLD1SXJH V5Z3QFNA HT9B8XC4 LO3MWVVE GXTXEVD6
LOARXXVA WX4RKBA7 5DBV1MFD NPTAIQSG 3PSS213D 5ZEXYT49 EVPZZQ8E
D1TTIV9D LAWY55MF BAMOJR73 F23PD2I6 GM6YCLY5 33YLOW2F JKYBZP32
162QCK1G H6HQ55B3 GXPKYTPE N9VNKB29
```

VZCZCMMM002  
RR M9A  
DE AAR9WF #0002 1441846  
ZNY EEEEE  
R 241846Z MAY 2018  
FM MARS STATION AAR9WF  
BT  
UNCLAS  
MSGID/GENADMIN/MARS STATION AAR9WF/2//  
SUBJ/OFFLINE ENCRYPTION//  
GENTEXT/REMARKS/THIS IS A SIMPLE MESSAGE SENT BY OFFLINE ENCRYPTION.  
THIS METHOD IS RARELY USED BUT EXPERTISE MUST BE MAINTAINED. TO  
CONFIRM YOU HAVE DECODED THE MESSAGE THE ANSWER IS  
KILO//  
BT  
#0002

NNNN