

NATIONAL SECURITY AGENCY
Washington 25, D. C.

COURSE	Military Cryptanalysis, Part I
LESSON 10	Miscellaneous monoalphabetic substitution systems; concealment systems.
TEXT ASSIGNMENT	Pars. 81-84

1. The following two messages were intercepted on the same net during a morning offensive. Solve them and recover all keys.

Message "A"

I L P U R P S B O K Y B D G Y Y N C N P V X H C J R O K F I
 N P X V P E W H L X K W Y X Q B V Y D B Y Y Z C X

Message "B"

R B V Y W B Y Y Z C T H E E B M M E Z I A B X H W S Y X C K
 N N B Y M S X Q D Y A E P C X

2. Solve the following cryptogram and recover all keys.

G H U I P G J H N I M B S P R I U S N S S H P G B R Q S A J
 O O Q R S S I P Q S M H V J I P Q I V V J F K I H G S A N Y
 P T K K D Y J K Q X Z V N P R O Q N J S N U Y E F E N P Z V
 N P R O Q Q T K L N F P H O N Q U P O Q H U Q T V O T N D O
 J T K L P O W O J T E J W N Q E K J A E I O U T I Q Q G T B
 A N N K Z X V U K R E M M Q R R T E I I K V P X V U K R R E
 M W K I K V P X V U D A E I P R S Q I I G W Q L Q U X V V X
 V U A T G W Q Q V P

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3. The following cryptogram is suspected to contain the word REGIMENT. Solve it and recover all keys.

B U F W W H E A G H M I T A J J S K L S M N H I U Y U Q A I
 A U M Q M U W I Z U V O J F H G U F M D G Q Y K Q L L S U I
 Y K C G S W U F Q U U Q K C F I W H Q K O G S W I Y J Y O Y
 S K X F Q I A D Q B Y K J Y S V C L L C S S H J W Y M J Y S
 X W Y K B J U K K U P T P W I I U Q H K X H Y K B J Y C O F
 Y Q E N V Q I C U Y B I R R W P I Y Y N P S W J E P M I O P
 U Q A R H K Y Q C G W P G E P G A E P L V G F H J F B B L Z
 U S S X S R M Y F Q X T S H D T T D Y C F X F Q H H L P K T
 G U D X C B T F J O W H A M V U W N H G H M I Q Q N Z H K F
 J H K I U S W W A L H S I U M H H A E Z I I Z W H H P H W U

4. The following cryptogram is suspected to contain the word BATTALION. Solve it and recover all keys.

R D I T J O G D P F Q U M T D I K R U I U L H K I M A S K I
 J M H Q D B B U G I A U Y B U I L Q U M P D T T D F K Q U D
 B B U G I K F B K V U Q U I K Z K Q U H K T D H T E C M K I
 K F B A Q I K H I U P D I K Q K C L U I K O D F I A U L U W
 T E R D I C D I D R L U J Q U M J M V U I R K E T I K H Q A

5. The following two messages are suspected to be isologs. Recover the plain text and reconstruct the cipher alphabet involved.

Message "A"

Q M S L G P W J R N N P H R E E N Q O H M A B G R P L N W J
 R N N V H M A Y T R G S L A P H M H X R E F R G B I L N P H

Message "B"

E T O S R D M O T A D P C O N N O R X D T A R S U T W G A S
 U A S A S N Y E X L I A H R I P L N S A O F G S B E O E L T

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6. Solve any five of the ten innocent-text messages given below.

- a. TO COVER AND HIDE YOUR FINANCES, I MAINTAIN STAFF TO BARTER FRANC EXCHANGE.
- b. BEARER IS A FRIEND. I CANNOT WRITE MUCH. WILL YOU BE READY TO MEET A TRUSTED INTERMEDIARY SO YOU CAN GIVE ALL NECESSARY DOCUMENTS TO HIM NEXT WEEK? I HAVE NOTHING MORE TO SAY.
- c. The following is an actual radiogram which was held up by a censor:

ES100 81 RADIO-WASHINGTON DC 210P JULY 1 1941

ROBERT C JOHNSTON III
CARE HELVETIA PALACE HOTEL LUGANO (SWITZERLAND)

MATERIALS ADEQUATE. CONTRACTS YOUR ASSISTANT RETURNED TO ME WERE OKAY AT CONSULATE. INSURANCE EXPEDITED QUOTATIONS ON CARGO RATES ALSO AS OF TOTAL POOLED SHIPMENTS. BECAUSE PRESENT HOLDING OF SHARES IS LINKED TO UNDECLARED ASSETS ATTENTION IS DIRECTED TO PROGRAM OF DENUNCIATION BY AGGRESSIVE MINORITY CHALLENGING DIVIDENDS. REALTY VALUES PREDICT SUSTAINED EXCEPTIONAL PROFITS HEREAFTER WITH DISCLOSURES AT MEETING ON SEVENTEENTH BREAKING UP RENEWED OPPOSITION.

REMSEN

- d. The following message, poorly spelled, is shown just as it was written by the originator.

DISATISFIED WITH IMMEDIATE RESULTS OF YOUR ANALYSIS STOP ADDITIONAL RENUNERATION TO ALL PERSENNEL WHO IDENTIFY COMPONANT PARTS OF THE ALLOIS OTHER THAN NICKEL OR COPPER
- e. CATALOG VALUES CANCELED UNLESS OFFER STRENGTHENED. COMPLEX SELECTION EFFECTIVELY STALEMATED. PSYCHOLOGICAL FOUNDATION UNWARRANTED.
- f. SPECIAL CONDITIONS SLACKENING. DIVULGE ACQUISITIONS WEDNESDAY TO INDUSTRY. START TRANSACTIONS SATURDAY NIGHT PLEASANTLY.
- g. REQUEST CONSIDERATION OF ONLY THE MOST USUAL PLACEMENTS OF ORDERS FOR BALANCED BUSINESS TRANSACTION. LET NOTICE BE GIVEN FOR A SUBSTITUTION AS SOME ARTICLES NOT EASILY CHANGED. PARTNER AGREEMENT IS EXTRA HELPFUL WHEN MAXIMUM.
- h. The secret text in the following message was solved by Sherlock Holmes in one of Sir Arthur Conan Doyle's stories.

"The supply of game for London is going steadily up. Head-keeper Hudson, we believe, has been now told to receive all orders for fly-paper and for preservation of your hen-pheasant's life."

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1. The following telegrams were filed by the same originator to the same addressee on successive days.

Message No. 1

MONEY SENT TO NEW HAVEN IN BANK ON ARTS ACCOUNT. HE MAY HAVE DRAWN ALL AND GONE HOME BEING SO BORED. AS ALWAYS HE NEEDS A LOT OF CASH, YET IS NOT ABLE TO DO MUCH WITH THE MONEY SENT TO PAY HIS LAB SCHOOL BILLS.

Message No. 2

SENT FORTY DOLLARS BY CHECK TO HENRY AND ALICE AFTER THEY PAYED ALL ARTS OLD DEBTS STOP. I REALLY WANT AGREEMENT WITH THEM, AND WE MUST MAKE ART STOP CHARGES AND BILLS ABOUT TOWN. SEND NO MORE CHECKS TO HIM OR CASH TO WASTE ALWAYS FOR HE SPENDS IT.

Message No. 3

MOTHER SENDS LOVE AND WAITS EACH LETTER AS SHE ALWAYS DOES, SO WRITE AS MANY AS TOM AND ELOIS DO TO HER. AS ALWAYS, JERRY.

- j. The following innocent-text message is suspected to contain information on ships sailing from Boston.

AT NINE ELEVEN THIS MORNING FOLLOWING CONVERSATION SURPRISED REPORTERS: "RUSSIA, FRANCE AND ENGLAND ASSURED PREPARATIONS WERE NOW RAPIDLY ATTAINING SATISFACTORY ALLOCATIONS. HOWEVER, THEIR ALLOTMENTS VARIED SLIGHTLY, AND IN AGREEING PROBABLY WERE NOT SURE OF THE OUTCOME. UNLESS TERMS ARE QUICKLY DETERMINED, MANY SPECIFIC AGREEMENTS WITH EACH OTHER WILL HAVE TO BE MADE."

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