

TM 11-459

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

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INTERNATIONAL MORSE CODE (INSTRUCTIONS)

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6 MARCH 1968

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(Instructions)

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CHAPTER 1

INTRODUCTION

1-1. Purpose and Scope

The purpose of this manual is to help students learn *audible* International Morse Code (IMC). It is written in two parts.

a. Part I, Information for the Student, explains the method of learning IMC by tape-recorded lessons. When the student has learned the code, additional recordings are used to increase the speed of code recognition and to teach code sending.

b. Part II, Information for the Instructor, will help him implement the IMC program.

1-2. Objectives

The objectives of this manual are—

a. To explain the code-voice method of teaching IMC.

b. To explain the procedure for acquiring a code reception ability of 15 groups per minute (gpm).

c. To explain how to adjust the telegraph key and send code.

d. To teach military lettering and the phonetic alphabet.

1-3. Comments on Publication

You are encouraged to submit recommended changes or comments to improve this manual. Make sure you key your comments to the specific page, paragraph, and line of the text in

which the change is recommended. Give reasons for your comments to make sure they are understood and evaluated properly. Forward your comments directly to the Commanding General, U.S. Army Signal Center and School, ATTN: SIGDTL-3, Fort Monmouth, N.J. 07703.

1-4. References

Refer to appendix A for related publications and training aids.

1-5. Radio Operator

a. There is a continuing military need for men who can receive IMC. Only the human code operator can hear and correctly translate the weak and wavering signal received from a distant operator on a frequency jammed by atmospheric or other signals. Radiotelegraphy, using IMC, provides the most reliable means of communication over long distances or under adverse conditions.

b. As a radio operator, you will be trained in radiotelegraphy and other communication procedures. Training in radiotelegraph procedures will be introduced as your code speed progresses. When you have reached a qualifying speed, you will be trained to operate in a simulated radio network to become familiar with all phases of station practice. You will also be taught how to install and operate various types of radio sets as well as the necessary electronic fundamentals to understand how radio sets work.

CHAPTER
INTRODUCTION

When the object of an investigation is to determine the nature and extent of a problem, it is necessary to first define the problem in terms of its essential characteristics. This is done by identifying the key elements of the problem and their relationships. The next step is to determine the scope of the investigation, which involves deciding what areas will be included and what areas will be excluded. Finally, it is necessary to determine the methods to be used in the investigation, which involves selecting the appropriate techniques and procedures.

1-1. Introduction

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1-2. Table Contents

The table of contents is a list of the chapters and sections of the report, arranged in order of their appearance. It provides a convenient way to find a specific chapter or section. The table of contents is usually located at the beginning of the report, after the title page. It is important to check the table of contents carefully to ensure that you are looking at the correct chapter or section. The table of contents also provides a good overview of the structure of the report, which can be helpful in understanding the overall scope and content of the investigation.

The first chapter of the report is the introduction, which provides a general overview of the investigation. It includes a statement of the problem, a description of the scope of the investigation, and a summary of the methods to be used. The introduction is important because it sets the stage for the rest of the report and provides the reader with a clear understanding of what to expect. The second chapter is the table of contents, which provides a list of the chapters and sections of the report. The third chapter is the literature review, which provides a summary of the research that has been done on the topic. The fourth chapter is the methodology, which describes the methods used in the investigation. The fifth chapter is the results, which presents the findings of the investigation. The sixth chapter is the discussion, which interprets the results and discusses their implications. The seventh chapter is the conclusion, which summarizes the findings and provides recommendations for further research. The eighth chapter is the bibliography, which lists the sources used in the investigation. The ninth chapter is the appendix, which contains supplementary material. The tenth chapter is the index, which provides a way to find specific information in the report.

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PART ONE
INFORMATION FOR THE STUDENT

CHAPTER 2
CODE INSTRUCTION

2-1. General

When someone speaks of learning a new language, we usually visualize months of pronunciation practice and the building of a vocabulary of at least a thousand words. In the International Morse Code language, you only have to build a vocabulary of 26 letters and 10 numbers to have an entire method of communication available to you.

2-2. Code Language

a. The International Morse Code is a unique language that will enable you to get the message through when other means of communication fail. It is a language that consists of short and long sounds that can penetrate interference with greater clarity than spoken words.

b. The sounds in code are expressed as *dits* and *dahs*; a short sound is *dit*, and a long sound is *dah*. Combination of dits and dahs are used to form the 26 letters of the alphabet and the 10 numbers. When listening to combinations of dits and dahs, you must hear the particular character as a whole sound with a distinct rhythm. The code phonic sound of each letter of the alphabet and each number is shown in figure 2-1. Notice that a dit is contracted to *di* (the *t* is lost in the *d* of the syllable that follows) except when a dit forms the final syllable of a character. For example, the letter L expressed phonically is *di dah di dit*.

2-3. Military Lettering

a. To copy code quickly and accurately, use

the military method of printing letters and numbers as shown in figure 2-2. Notice that this figure also indicates the phonetic name for each letter of the alphabet and the pronunciation of the names and numbers.

b. Observe the following rules in military lettering. These rules are illustrated in figure 2-2.

(1) Make U's with square corners to prevent them from looking like V's.

(2) Place a short line through Z to prevent confusion with the numbers 2 or 7.

(3) Place a slanted stroke through the number 0 (zero) to distinguish it from the letter O.

(4) Underscore the number 1 to avoid confusion with the letter I.

(5) Make the letter E with two strokes, not three or four. This saves time.

(6) Print the number 5 carefully to prevent confusion with the letter S.

(7) When you use ruled paper or message blanks, print slightly above the line (fig. 2-3). If the horizontal base stroke is made on the ruling on the paper, the letter U might be confused with the number 11, or the letter I with the number 1, or F with E.

c. When you do not have to struggle with the problem of printing, you can concentrate better on your code reception. The faster you can print, the easier it will be for you to copy code. But remember, your printing *must* be legible and neat.

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

NUMBER	PHONIC SOUND	NUMBER	PHONIC SOUND
1	di DAH DAH DAH DAH	6	DAH di di di dit
2	di di DAH DAH DAH	7	DAH DAH di di dit
3	di di di DAH DAH	8	DAH DAH DAH di dit
4	di di di di DAH	9	DAH DAH DAH DAH dit
5	di di di di dit	Ø	DAH DAH DAH DAH DAH

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Figure 2-1. Phonic sound of International Morse Code.

2-4. Learning the Code Characters

a. The 36 code characters will be presented to you in 4 tape-recorded lessons. Each lesson will teach you nine code characters in several recorded versions. The different versions are designed to make the instruction as interesting as possible. Additional series of recorded lessons provide even greater variety.

b. In each of the tape-recorded lessons, you will first be introduced to each code character and then be given basic code practice in each character. The code characters are first introduced by their phonic names. This is followed by a vocal imitation of the code sound and then by the code signal as you will hear it on the radio. During actual practice you will hear a code signal or a group of signals; then a voice will call back the signal by its phonic name.

This is the *code-voice* method which has proved to be the most effective method for teaching IMC.

2-5. Code Practice Sheet

a. The code practice sheet (fig. 2-4) is designed to make recording code groups easy for you. It lets you practice printing in groups of five characters (the most commonly used code group) and provides a continuous record of your progress.

b. When using the code practice sheet, follow the instructions listed below and illustrated in figure 2-4. The numbered arrows in figure 2-4 correspond to the subparagraph numbers below.

(1) Fill in the heading on each sheet before the code practice begins.

 ALFA (AL FAH)	 BRAVO (BRAH VOH)	 CHARLIE (CHAR LEE)	 DELTA (DELL TAH)
 ECHO (ECK OH)	 FOXTROT (FOKS TROT)	 GOLF (GOLF)	 HOTEL (HOH TELL)
 INDIA (IN DEE AH)	 JULIETT (JEW LEE ETT)	 KILO (KEY LOH)	 LIMA (LEE MAH)
 MIKE (MIKE)	 NOVEMBER (NO VEM BER)	 OSCAR (OSS CAH)	 PAPA (PAH PAH)
 QUEBEC (KEH BECK)	 ROMEO (ROW ME OH)	 SIERRA (SEE AIR RAH)	 TANGO (TANG GO)
 UNIFORM (YOU NEE FORM)	 VICTOR (VIK TAH)	 WHISKEY (WISS KEY)	 XRAY (ECKS RAY)
 YANKEE (YANG KEE)	 ZULU (ZOO LOO)	 WUN	 TOO
 THUH-REE	 FO-WER	 FI-YIV	 SIX
 SEVEN	 ATE	 NINER	 ZERO

THE UNDERLINED PORTION OF THE ALPHABET DE-
NOTES ACCENTED SYLLABLE(S). TM 459-2

Figure 2-2. Military lettering and phonetic alphabet.

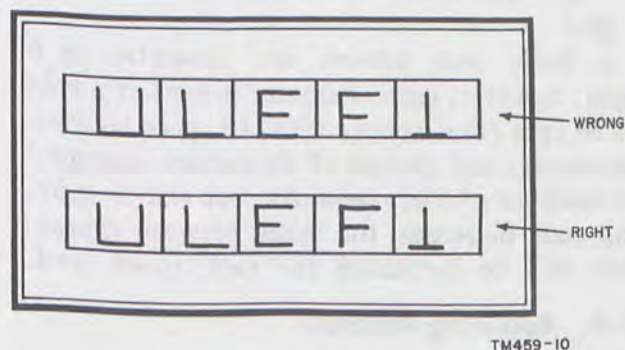


Figure 2-3. Right and wrong lettering on ruled paper.

(2) As you hear each code signal, print the character it represents in the bottom row of squares. Start at the first block.

(3) If you have recorded any characters incorrectly, print the correction in the top square above the error on callback.

(4) Leave the top square blank if the character in the bottom square is correct.

(5) If you do not know the code character, leave the space blank. Print the correct character in the top square when it is identified later. By leaving the space blank and listening for the next character, you avoid pondering too long over one particular signal, which might cause you to miss the next two or three characters.

c. On the back of the code practice sheet there is a place for plain language exercise and a section you will use for progress checks.

2-6. Code Standards

a. To standardize IMC speeds, the five-letter word PARIS is used to establish a nominal speed in groups per minute (gpm) at all speed levels. For example, a speed of 20 groups per minute is established by setting tape equipment or regulating hand-sent transmission to a speed that will send the work PARIS exactly 20 times in 1 minute. The actual number of groups transmitted per minute depends on the frequency appearance of code characters and on the timing standard used.

(1) Some instructional tapes use the CODEZ standard. The word CODEZ is a typical five-letter code group. This standard was originally used to time IMC transmissions consisting of five-character code groups containing letters of the alphabet appearing at equal frequency. The actual number of groups transmitted in 1 minute is the same as the nominal speed of transmission.

(2) The word PARIS was used originally to time clear text or plain language transmissions. This standard is used to determine the number of five-letter plain language words transmitted per minute.

(3) A change in timing standard or in frequency appearance of code characters will change the actual speed of transmission accordingly.

PRACTICAL EXERCISE AND PROGRESS TEST

(Last Name) (First Name) (M. I.) (Grade) (GPM) (Date-Time)

1

2

C	A	O	L	S	5	C	Y	P	X	P				W	9	E	4	B	V	K	G	6	∅						
H	A	Z	M	L	3					O	4	F	4	M	7					Q	5	Z	O	M	D	N	3	V	W
B	Q	N	H	H	W	S	E	4	O	B					L	K	2	O	L	5	B	Y	N	X					
G	Z	3	G	Y	K	D	L	Z	∅	H					S	V	R	E	M	F	T	T	A	C					
S	Z	F	V	C	2	W	L	9	R	L					2	V	B	I	J	X									
X	3	U	H	S	B	C	N	N	4	L	A	K	J	C	D	∅	B	E	V	2	R	N	L	7					

3

4

5

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Figure 2-4. Code practice sheet.

(4) When measuring the IMC receiving or sending ability of students or operators, consider the content of the IMC material as well as to the actual speed of transmission in words or groups per minute.

(5) Most IMC training material consists of both letter and number code groups. When using material weighted to include three alphabets to ten numbers, the relationship between the PARIS (nominal) speed and CODEZ (actual) speed in groups per minute is as follows:

PARIS (gpm)	CODEZ (gpm)
7	6.43
10	8.82
13	10.94
15	12.59

b. At a speed of 20 gpm the signal is heard as one sound unit and not as separate dits and

dahs. The elements of the code characters have this relationship:

- (1) The dit is the unit of length.
- (2) The dah is equal to 3 dits.
- (3) The space between the dits and dahs within the character is equal to 1 dit.
- (4) The space between characters is equal to 3 dits.
- (5) The space between groups is equal to 7 dits.

c. Basic code lessons are presented at 5 gpm; however, each character is sent at a rate of 20 gpm (tone speed) with the space between characters and groups of characters increased to result in a lower speed. As your skill in copying code increases, the space between characters will be decreased for each speed level.

2-7. Receiving Practice

When you learn the 36 code characters and pass the 5-gpm code test, the next step will be

to increase your code reception speed. This is accomplished by the tape-recorded 7-gpm through 18-gpm receiving practice program. The progressively faster code speeds in each lesson in appendix D provide prompt reinforce-

ment of your response to the code signals. You will also be able to determine your exact code receiving speed as you progress and note improvements by checking the highest gpm you have copied correctly.

CHAPTER 3
SENDING CODE

Section 1 USING HAND KEY

3-1. General

No doubt you are now impatient to start sending code. Before sending, however, you should be able to receive all the code numbers in a few. Approximately one-third of the code program time will be spent transmitting, however, the time may vary according to your ability to develop a good sending key. You must keep in mind the importance of good sending as well as accurate receiving so that you will become the best possible radio operator.

3-2. Hand Key Adjustment

Before you attempt to use the hand key, you must learn the function of each of its parts and be able to adjust it properly. Figure 3-1 is a detailed drawing of a hand key indicating the parts referred to below.

Adjustment on each side of the key at the base of the spring which houses the transmitter. A bearing on each transmitter side is used to secure the transmitter screw in place once the correct adjustment is made. The key lever extends along the main axis of the key and is held in place by the transmitter screw. At the far end of the key lever is the screw adjusting screw. Its purpose is to adjust the space between the contacts. The key spring is made of hardened metal and screws into the key lever. A spring tension screw provides a means of setting the spring tension for the desired amount of upward movement (1/2") of the key lever. Notice that all screw adjustments are secured by locknuts. The circuit to be tested is connected to the hand key by plugging back.

(1) Loosen the locknut on the spring tension screw and turn the screw counter-clockwise until there is approximately 1/2 inch of space between the contacts.

(2) Loosen the locknut on the spring tension screw and turn the screw counter-clockwise until all spring tension is released.

(3) Loosen the locknut on each transmitter screw. Adjust the two tension screws until the contacts are aligned. The contact on the key lever should be directly above the contact mounted on the key base. Tighten both transmitter screws simultaneously until the key lever remains up or in an open contact position. Loosen each transmitter screw slightly until the key lever falls freely. Grasp the transmitter screws firmly with one hand to prevent them from turning and tighten the locknuts with the other hand. The screws should be turned until the other hand is steady.

(4) Fold a sheet of ordinary paper (one 4 1/2 x 6 inch sheet) and place this paper between the transmitter screws. Push the paper down until the contacts begin to exert pressure on you move the paper. Grasp the screw adjusting screw with one hand and lightly touch the locknut with the other hand. Move the paper to the space between the contacts. This should be approximately 1/32 of an inch. This setting applies to all keys. It is a matter of individual preference.

(5) Turn the spring tension screw clockwise until the spring begins to exert pressure and release the key lever. Turn the spring tension screw one-half turn clockwise. Tighten the locknut as usual. Turn on the spring tension screw will help you to measure the amount of spring tension required depends on your flow, if

CHAPTER 3

SENDING CODE

Section I. USING HAND KEY

3-1. General

No doubt you are anxious to start sending code. Before sending, however, you should be able to receive all letters and numbers at 5 gpm. Approximately one third of the code practice time will be spent transmitting, however, the time may vary according to your ability to develop a good sending *fist*. You must keep in mind the importance of good sending as well as accurate receiving so that you will become the best possible radio operator.

3-2. Hand Key Adjustment

a. Before you attempt to use the hand key, you must learn the function of each of its parts and be able to adjust it properly. Figure 3-1 is a detailed drawing of a hand key indicating the parts referred to below.

b. Mounted on each side of the key are the *lateral blocks*, which house the *trunnion screws*. A *locknut* on each trunnion screw is used to secure the trunnion screws in place once the correct adjustment is made. The *key lever* extends along the main axis of the key and is held in place by the trunnion screws. At the far end of the key lever is the *space adjusting screw*. Its purpose is to adjust the space between the *contacts*. The *key button*, made of insulating material, screws into the key lever. A *spring tension screw* provides a means of setting the spring tension for the desired amount of upward movement (lift) of the key lever. Notice that all screw adjustments are secured by locknuts. The circuit to be keyed is connected to the hand key by *binding posts*.

c. To adjust the hand key properly follow the instructions described below.

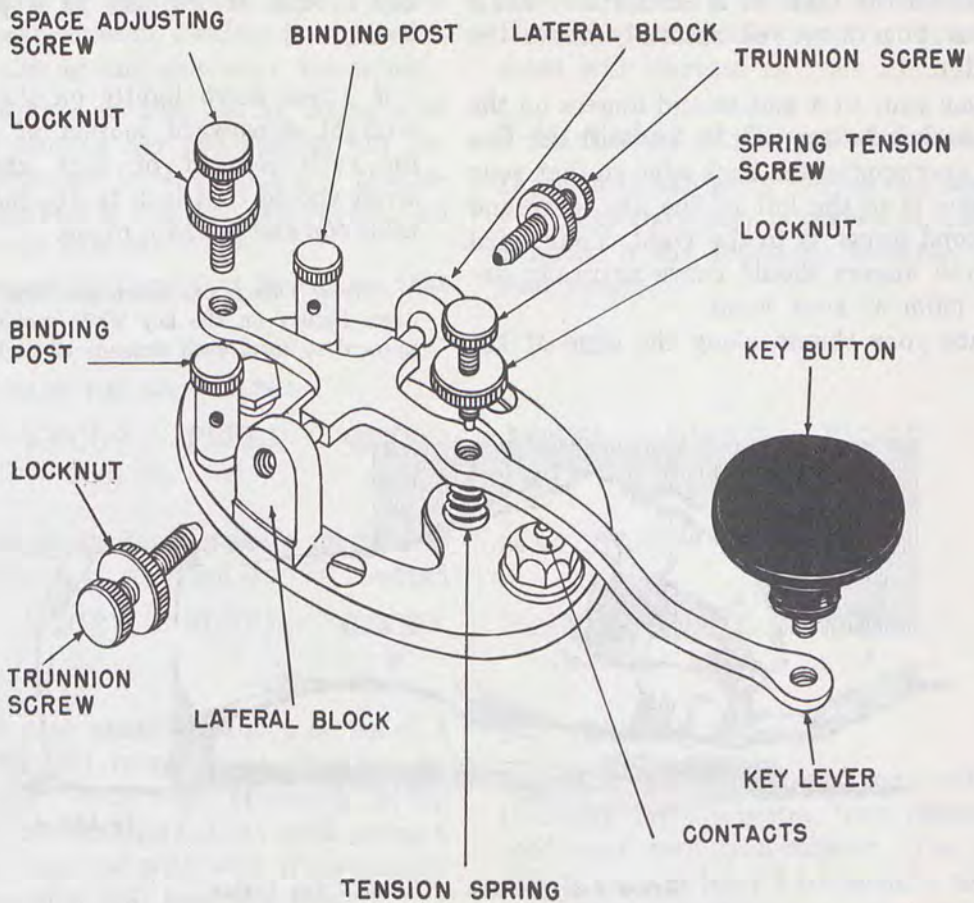
(1) Loosen the locknut on the space adjusting screw and turn the screw counterclockwise until there is approximately $\frac{1}{4}$ -inch of space between the contacts.

(2) Loosen the locknut on the spring tension screw and turn the screw counterclockwise until all spring tension is released.

(3) Loosen the locknut on each trunnion screw. Adjust the two trunnion screws until the contacts are aligned. The contact on the key lever should be directly above the contact mounted on the key base. Tighten both trunnion screws simultaneously until the key lever remains up or in an open contact position. Loosen each trunnion screw slightly until the key lever falls freely. Grasp the trunnion screws firmly with one hand to prevent them from turning and tighten the locknuts with the other hand.

(4) Fold a sheet of ordinary paper twice (four thicknesses) and place this paper between the two contacts. Tighten the space adjusting screw until the contacts begin to exert pressure as you move the paper. Grasp the space adjusting screw with one hand and tighten the locknut with the other hand. Remove the paper. The space between the contacts should be approximately $\frac{1}{32}$ of an inch. This setting applies to all keys. It is not a matter of individual preference.

(5) Turn the spring tension screw clockwise until the spring begins to exert pressure and raises the key lever. Turn the spring tension screw one and one-half turns clockwise. Tighten the locknut. A pencil mark on the spring tension screw will help you to measure the amount of turn. The amount of spring tension required depends on you. However, it



TM459-II

Figure 3-1. Hand key.

should never be more than the minimum amount necessary to form clear and distinct IMC characters.

d. Improper adjustment of the hand key can result in one or more of the following conditions:

(1) *Too much spring tension* forces the key lever up before the elements are completely formed, causing short dits and dahs. In addition, you will be required to expend more effort while sending and will become tired after a short period of time.

(2) *Not enough spring tension* causes the elements of the code characters to run together or the space between elements to be irregular.

(3) *Too much space between the contacts* has the same effect on sending as too much spring tension. *Too little space* between the contacts has an effect similar to weak spring tension.

(4) *Trunnion screws that are too tight* cause the key lever to bind. *Trunnion screws that are too loose* might keep the contacts from meeting in proper alignment.

(5) *Dirty contacts* cause scratchy or intermittent keying. Keep the contacts clean at all times. Contacts may be cleaned by sliding paper between them while exerting slight pressure on the key button.

(6) *Locknuts that have not been tightened* cause the key to get out of adjustment while sending. Insure that all locknuts are secure after adjusting the trunnion, space adjusting, and spring tension screws.

3-3. Hand Position at Key

a. Take a natural and comfortable sitting position at the key. Sit erect with your body parallel to the table and your feet flat on the floor, one slightly ahead of the other. Place

your arm on the table at a comfortable angle with your fingers curved naturally above the key button.

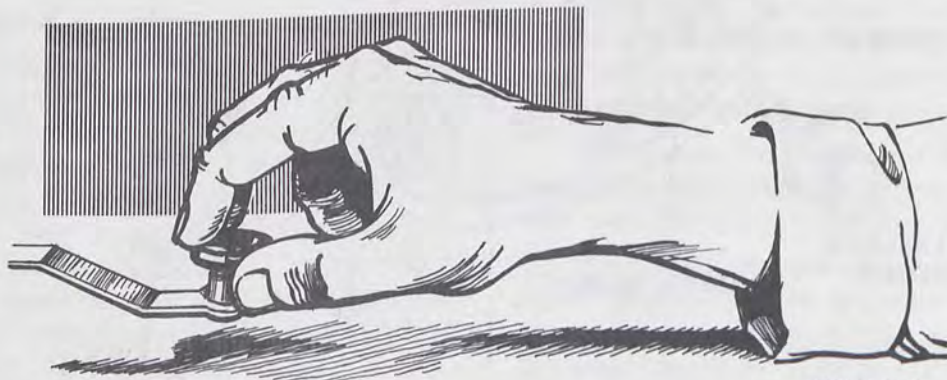
b. Place your first and second fingers on the top of the key button (fig. 3-2) with the tips slightly overlapping the back edge so that your first finger is to the left of the key lever and your second finger is to the right. Your third and fourth fingers should curve naturally under the palm of your hand.

c. Place your thumb along the edge of the

key button. It will act as a pivot for your wrist.

d. Press down lightly on the key, using a straight downward motion of your forearm for each element of each character. Your wrist should be 1-inch to 1½-inches above the table top and act as a hinge.

Note. This is one technique. The other is to press down lightly on the key while moving your forearm upward to form each element of each code character.



TM459-4

Figure 3-2. Position of hand at key button.

3-4. Sending Practice

a. When you are in a comfortable position at the key, you can start sending a series of dits. Do not try to send the dits rapidly; try to develop a relaxed hand that will enable you to send smoothly. The dits should be evenly spaced, and each should be the same duration. Be sure to put wrist and forearm movement into each dit. If you emphasize the wrist motion your timing will be more accurate and your hand and arm muscles will be more relaxed. Check yourself by sending a series of E I S H 5 in random order.

b. After you have sent a number of dit characters, you can start sending dahs. Remember that the wrist and forearm movement will help to develop your timing. Practice dah characters T M O Ø in any order.

c. When you have completed the dit and dah exercise, you can combine dits and dahs in the simple characters and then in the longer characters and numbers. The relationship that

exists between the elements of the code characters is—

- (1) The dit is the unit of length.
- (2) The dah is equal to three dits.
- (3) The space between the dits and dahs within the character is equal to one dit.
- (4) The space between characters and groups of characters changes as code speed increases.

d. Do not become anxious about increasing your speed. If you concentrate on clarity and accuracy, your progress will be satisfactory. A good practice to follow is not to send faster than you can receive. The exercises in appendix E include a majority of the more difficult characters for additional sending practice. Remember the wrist and forearm movement for each dit and each dah.

3-5. Testing

a. You will find sending tests are less demanding than receiving tests. During your

sending practice you will be able to record your sending or have someone monitor it so you can check your timing and character formation.

b. Prepare for a sending test by taking your place at the sending key and making any necessary adjustments to it. Send a few characters before the test so that you can get the feel of the key and also can relax.

c. It is especially important to realize that

Example:

Here is the series you are to send:

KRGBV	PLKED	QZXSW	RGSMI	PJAXC	FKSRD
1	2	3	4	5	6

Suppose in group 6 you make a mistake in the third letter and you send an "H" instead

KRGBV	PLKED	QZXSW	RGSMI	PJAXC	FKH
1	2	3	4	5	6

To correct your mistake, send a series of 8 E's (EEEEEEEE) immediately after the error, and then repeat the preceding group (group 5 in this example). Next send group 6 correctly and continue with your transmission. Your transmission will look like this.

KRGBV PLKED QZXSW RGSMI PJAXC
FKH EEEEEEEE PJAXC FKS RD

When copying back your tape draw a line through the group with the error. The transmission should read as shown below:

KRGBV PLKED QZXSW RGSMI PJAXC
~~FKH~~FKSRD

sending speed must be achieved gradually. Through systematic sending practice your speed will increase as your timing improves.

3-6. Method of Correcting Errors

If you make an error during the sending test, you must know how to correct it. Use the procedures in the following example to correct your errors.

of an "S". (See below.)

3-7. Grading

To qualify at a given speed you must send continuously for 3 minutes, then receive and record your own transmission. You should be able to copy at least 2 consecutive minutes out of 3. At the conclusion of a test, your instructor will inform you if you passed or failed the sending requirement. If you pass the test, you can increase your sending speed to the next test level. If you failed, your instructor will assign remedial exercises to correct your sending or timing mistakes.

Section II. USING THE SEMIAUTOMATIC AND AUTOMATIC KEYS

3-7. General

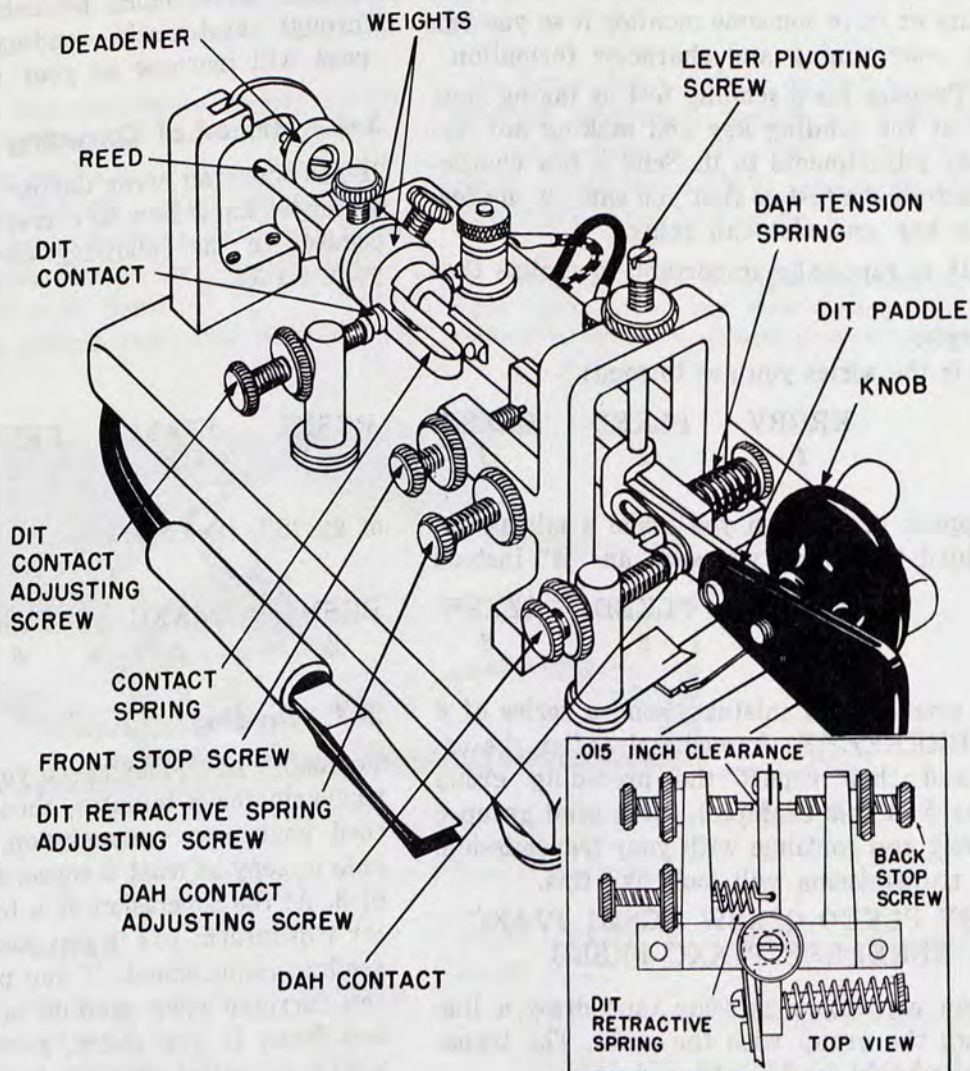
A semiautomatic (mechanical) or automatic (electronic) key may be used when code has to be sent for long periods of time. The semiautomatic and automatic keys are designed to make code sending easier rather than faster. When you use either of these keys, the hand and wrist motion is horizontal rather than vertical. Perfect control is far more important than speed. You must be especially careful to send dits accurately, because careless sending will not be understood.

3-8. Semiautomatic Key

To send code with the semiautomatic key (fig. 3-3), move the *knob* to the left for dahs and move the *dit paddle* to the right for dits. When the dit paddle is moved to the right it causes the vibrating reed to make and break the *dit contact*. The number of dits sent is determined by the length of time the dit paddle is held to the right.

3-9. Adjusting Semiautomatic Key

a. Examine the key for mechanical and electrical defects in the following manner:



TM459-5

Figure 3-3. Semiautomatic key.

(1) Make certain that both *dit* contacts and *dah* contacts are clean and aligned.

(2) Be sure that the *level pivoting screw* is loose enough to permit the lever to move freely.

(3) Be sure that all supporting parts are secure.

(4) Inspect the cord and plug for broken insulation or loose connections.

b. Follow the instructions below for adjusting the semiautomatic key.

(1) Place the key (fig. 3-3) on a level surface.

(2) Loosen the *locknut* on the *back stop*

screw and adjust the screw until the *reed* lightly touches the *deadener*. Tighten the *locknut*.

(3) Loosen the *locknut* on the *front stop screw*. Adjust the screw until the separation between it and the *reed* is approximately 0.015 inch. Insert ten pages of this manual between the screw and lever to serve as a convenient gage. A greater separation is permissible if you prefer more lever movement. Tighten the *locknut*.

(4) Press the *dit paddle* to the right. Hold the lever in this position and stop the vibration of the *reed*. Adjust the *dit contact adjusting screw* until the *dit contacts* just

meet. This important adjustment determines whether the dits will be too heavy or too light. Make the adjustment without flexing the *contact spring*. Tighten the locknut on the *dit contact adjusting screw* without disturbing the adjustment.

(5) If the dits are too fast, move the weights located on the reed in the direction of the deadener. If the dits are too slow, move the weights in the opposite direction.

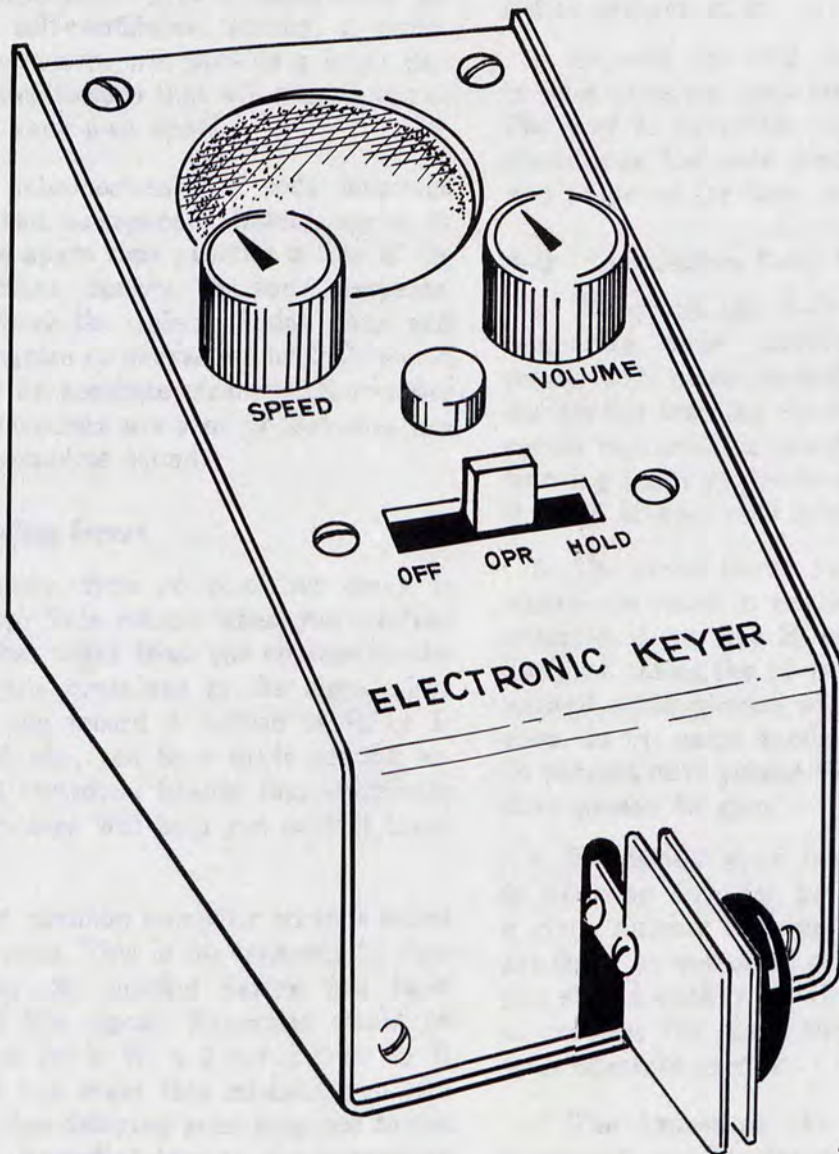
(6) Adjust the *dit retractive spring* and the *dah tension spring* for ease of operation.

(7) The key is adjusted correctly when a

series of dits and the space between the dits are of equal duration.

c. No further adjustment should be required unless you are certain the code elements are not being formed properly. If any of the locknuts become loose, readjust the key if necessary.

d. Repositioning the weights to change the speed of the dits or to change the tension of the dit retractive spring and dah tension spring will not effect the adjustment of the semiautomatic key. Make these changes to suit your requirements.



TM 459-7

Figure 3-4. Automatic (electronic) key.

3-10. Automatic Key

The automatic key (fig. 3-4) forms self-completing dits and dahs with a constant *dit-to-space-to-dah* ratio. This is accomplished electronically rather than mechanically as in the

semiautomatic key. The automatic key sends dahs when the key is moved to the left and dits when it is moved to the right. Only simple adjustments of the *speed* (control) knob and the *volume* (control) knob are necessary before sending code.



CHAPTER 4

STUDENT PROGRESS

4-1. General

a. No other student will progress in quite the same way as you do. Your success in receiving and sending code is an individual accomplishment that depends on your concentration, patience, and self-confidence. Ideally, a multi-channel code system will provide a large variety of practice lessons that will permit you to progress at your own speed.

b. Think subconsciously in code language when you read newspapers, letters, signs, or posters. This spare time practice is one of the most important factors in your progress. Whistle or voice the code in di-dah form and learn to recognize all characters by their sound pattern, not by separate elements. Remember that code characters are sent so that they are heard as a complete sound.

4-2. Receiving Errors

a. A common type of receiving error is called *dotting*. This occurs when you confuse characters that differ from one another by the number of dits contained in the signal. For example, if you record S instead of H, or D instead of B, etc., you have made dotting errors. Special remedial lessons that emphasize the dit characters will help you correct these errors.

b. Another common receiving error is called *copying too close*. This is the tendency to copy the character too quickly before you have heard all of the signal. Examples would be copying an A for a W, a J for a l, or an R for an L. If you make this mistake, you will have to practice delaying your response to the code signal. Remedial lessons for correcting these errors require you to listen carefully for two or three code signals before writing any-

thing on your practice sheet. One of the requirements for improving accuracy and increasing recording speed is copying behind the characters being sent. This delayed response allows you time to hear the whole character before you record it.

c. As with any skill, confidence is required to pass progress tests and to relieve tension. The way to gain this confidence is by participating in the code practice program which was prepared for that purpose.

4-3. Cumulative Code Practice Records

a. The graph (fig. 4-1) provides a basis for comparing your performance through the course with other students' performances under similar training conditions. The family of curves represents a cumulative record of code learning based on the records of many trainees through 15-gpm code speed.

b. The graph shows you or your instructor where you stand in relation to the group. For example, if you had 50 hours of code practice and just passed the 12-gpm test, you are doing as well as 38 percent of the students in your class. In the same number of practice hours, 14 percent have passed 15 gpm and 67 percent have passed 10 gpm.

c. Frequently your instructor is interested in knowing how far you should progress in a given number of hours. Assuming that you are doing as well as 38 percent of the students, you should qualify on 15 gpm after 67 hours of practice. The graph shows what can be done with accurate records.

d. The figures on the graph have a high degree of accuracy for a typical instructional situation, but may not apply to every situation because of different teaching methods or stu-

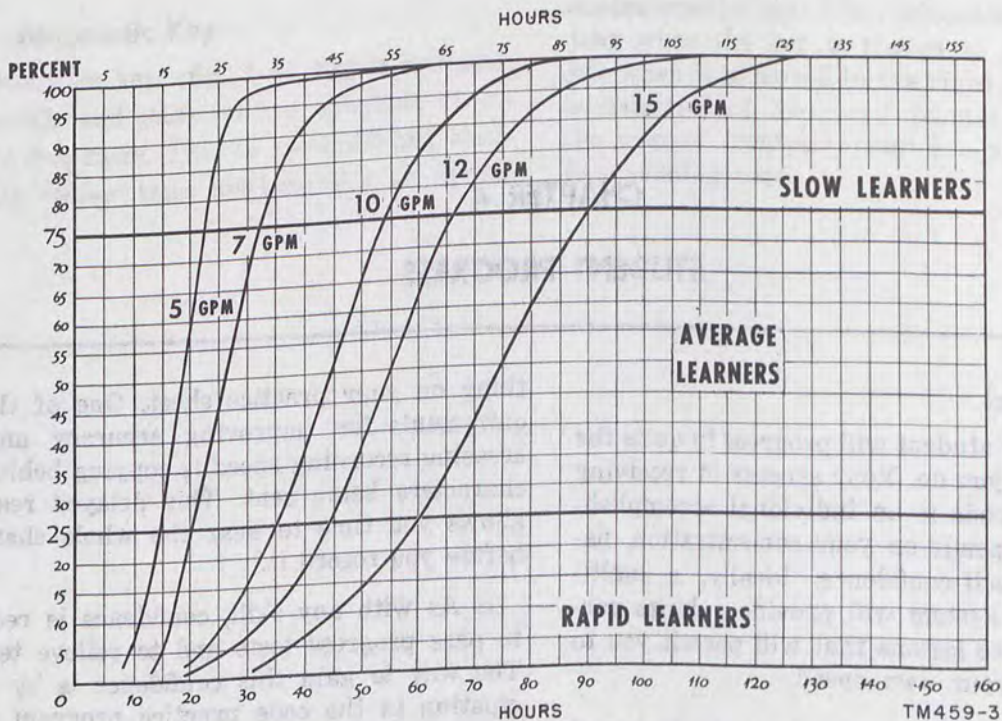


Figure 4-1. Cumulative hours required to pass 5 to 15 gpm.

dent aptitude. Your instructor may devise similar graphs for his own classes. The requirements for making such a graph are a record of practice hours and the number of groups per minute your class can copy correctly.

4-4. Retention of Code Skills

a. Once you have thoroughly learned IMC, retention is assured, regardless of the time interval between practice sessions. If you have learned to receive code without error at 5 or 7 gpm you will probably be able to recognize individual code signals 10 or 15 years later.

b. While the retention of IMC as a language is assured, your speed of code recognition can be adversely effected in a very short period of time. You should strive to reach the highest level of speed in receiving code in the allotted time because there may be several weeks between the time you leave school and the time you begin actual code operation. Some operators may regress as much as 5 gpm in code

receiving speed in a week without practice. Graduates of code operator schools who have an IMC receiving speed of 15 gpm may be unable to operate in a continuous wave (CW) net at 10 gpm if practice is not maintained.

c. It is absolutely essential that you follow a schedule of code practice or CW operation to retain proficiency. Your IMC receiving speeds will increase and your ability to communicate by code will improve proportionately to the amount of practice you do.

d. Only after years of code operation and achieving a code receiving speed of 25 gpm or higher will you then be able to go without practice with little, if any, effect on your code copying ability.

e. When you use other means of communication, you should spend some off-duty time copying IMC. Radio receivers, which are components of the radio communication system, may be utilized for this practice.

PART TWO
INFORMATION FOR INSTRUCTOR

CHAPTER 5
TEACHING METHODS

5-1. The Code-Voice Method

a. The code-voice method is the most effective method devised to teach International Morse Code. Its name is derived from the method of identifying a code signal by voice, giving the student immediate knowledge of his correct or incorrect response to a code signal.

b. Each of the four lessons shown below contains nine code characters. The least difficult characters appear in lesson 1. The code characters rated next in order of complexity appear in lesson 2. Lesson 3 contains the remaining nine letters of the alphabet, and lesson 4 presents the numbers one through nine. Lessons 2, 3, and 4 contain a relatively high percentage of characters learned in previous lessons.

- | | |
|--------------|-------------------|
| (1) Lesson 1 | E I S T M O A N W |
| (2) Lesson 2 | B C D G Q X Y Z Ø |
| (3) Lesson 3 | F H J K L P R U V |
| (4) Lesson 4 | 1 2 3 4 5 6 7 8 9 |

c. Another version of the basic lessons contains only concentrated practice on the new signals. This reduces monotony caused by over-learning and provides practice on segments of the alphabet with which the student may have difficulty.

d. An alternate basic program has all 36 code characters appearing in each lesson. It is useful as a refresher program for students who have received previous training in IMC and as a way to expedite advancement of fast learners. It can also be used as an alternate method of presentation in conjunction with the basic IMC series.

5-2. Receiving Practice

a. The most recent method devised to increase the speed of code reception is based on an extensive experiment conducted in IMC training. The practice material is presented in progressively faster code speeds at 1-gpm speed increments. The practical exercise in appendix D contains all of the practice material used in the program. This exercise provides prompt reinforcement for student response. He corrects his own paper to determine his code receiving speed.

b. In the traditional IMC receiving program, code speeds from 7 to 25 gpm are presented in 2- or 3-gpm increments. Progress from one speed to the next may cause periods of practice which produce little improvement, but this effect is reduced by using the receiving practice suggested in *a* above. However, the traditional program can be used to provide variety in code practice.

5-3. Remedial IMC Program

a. A remedial IMC receiving program may be necessary due to persistent inaccuracies by some trainees. The two most common types of errors in receiving are *dotting* and *copying too close*.

(1) The most difficult characters in teaching IMC are the dot signals for 6, 5, 4, H, and V. The students confuse the 6 with B, the 5 with H, the H with S, and the 4 with V. Students also have a tendency to hear code signals shorter than they actually are which would, for example, substitute and S for an H more often than an H for an S.

(2) Teach students to delay their response to a code signal. Instruct them to copy one or two characters behind the signal to avoid those errors produced by copying too close.

b. A series of magnetic tape recordings prepared for each of the receiving speeds (7, 10, and 13 gpm) will help the student to increase speed of character recognition. One series is a completion exercise which requires the use of a special exercise sheet.

5-4. Program Implementation

a. For optimum results the IMC program should be reproduced from 1/4-inch by 3,600-foot magnetic tape on 10 1/2-inch reels with tape speed set at 7 1/2-inches per second. This provides four periods of instruction per tape and eliminates winding or rewinding, keeping tape breakage at a minimum. If possible, place the magnetic tape reproducers in a central control room and transmit the code over cables to switchboard facilities in the classroom.

b. Enough reproducers should be available to channel all code necessary to meet the trainee requirements. Separate channels can be used for each part of the IMC program listed below.

- (1) Basic IMC Series.
- (2) IMC Receiving Practice.
- (3) IMC Receiving Test Program (7-25 groups per minute).
- (4) Remedial IMC Receiving Program.
- (5) IMC Sending.

5-5. Proficiency Standards

a. *Receiving.* Qualification requirements for a given speed in receiving IMC are 3 out of 5 consecutive minutes of copy. Some errors may be allowed during code speed progression to the qualifying code speed.

b. *Sending.* Trainees are required to transmit IMC at each speed for 3 minutes. A tape recording is made of their transmission or the students' sending can be monitored. They will qualify if they are able to transmit the required number of groups and *copy back* their

own transmission for 2 consecutive minutes out of 3.

5-6. Instruction Aids and Techniques

a. As an instructor you play a vital role in the success of the IMC course. You must be constantly aware of the difficulties of each student in your class and to take prompt remedial action. The tape-recorded code program alone cannot teach code. You have to keep the students interested and motivated at all times. As an instructor ask yourself—

(1) How can I assure each student of my sincere interest in his progress?

(2) How can I make the learning process easier for him?

b. As an instructor of IMC, you are responsible for stimulating your students' interest and attentiveness. Careful observance of student progress will keep you aware of the need for corrective action.

c. Here are some procedures and techniques that you can use to supplement the tape-recorded instructional material.

(1) Place a list of the code characters of each basic lesson in some prominent place in the code room.

(2) Rehearse the code sounds with the students using both vocal imitation and audio oscillator with a hand key.

(3) Emphasize the importance of learning code by the *sound* of each character. Point out the difference in the sound of code signals that appear to be similar to the student.

(4) Maintain an active interest in the problems students may have with IMC.

(5) Observe each student carefully during the tape-recorded practice portion of the class.

(6) Summarize each code receiving period and have progress test papers available as soon as they have been graded.

(7) Make constructive criticism when criticism is needed.

d. After a few hours of code instruction, you will be able to pick out those students who will require a personalized remedial program.

When you have determined a student's specific difficulty, give him individual instruction. In remedial programs, vocal imitation practice on the difficult characters used in conjunction with a hand key and code oscillator have proved very successful. When code sounds have been learned, follow the same general procedure as recorded on the tape lessons. Encourage student participation in identifying the

hand sent signals. Discourage students from mentally repeating or echoing the IMC sound in vocal imitation prior to recording the character. When this happens, it is an indication that the student does not know the code sound, which will limit his ability to copy code at higher speeds. When you feel that the student is on the right track, return him to his class.

3-4. Code Finding Devices

A hand key and code oscillator are used in conjunction with a code oscillator and a hand key. The hand key is used to produce the code sound and the code oscillator is used to produce the code sound. The hand key is used to produce the code sound and the code oscillator is used to produce the code sound.

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3-5. Teaching Basic Code

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3-6. Advanced Code Program

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CHAPTER 6

FIELD TRAINING PROGRAM

6-1. General

You may be asked to establish a code training program in your field unit or to organize code practice sessions to maintain code proficiency in your unit. The information below suggests training devices and practice systems for a code-voice program for beginners as well as a group of characters for increasing speed of code recognition.

6-2. Teaching Basic Code

a. The sample script and code practice groups in appendix B may be used in whole or part to serve as a guide for teaching basic IMC. The program is divided into four lessons starting with the easier characters and progressing to the more difficult ones. Introduce each new character by its phonetic name, call out its phonic sound in dit dah form, and then transmit the code character. After the characters are introduced send them in random order in groups of five followed by immediate identification of the character. During the next exercise transmit the code character but do not identify it for 3 or 4 seconds; this delay allows the student time to print the character he thinks it is. Continue through the four lessons following this procedure.

b. You can implement this program with a code oscillator and a hand key if more elaborate code practice equipment is not available.

6-3. Advanced Code Program

a. Appendix C contains 20 lessons with all 36 code characters in each lesson. These lessons can be used as a guide to advance speed of code recognition after your students pass the 5-gpm code test or as basic code practice material in addition to that mentioned in paragraph 6-2.

b. These lessons are presented in doubles, singles, and 5-gpm runs. The additional lessons available in appendix D, Receiving Practice, and appendix E, Sending Practice, will provide you with a variety of code practice exercises that will give you a flexibility to meet your students' individual needs.

6-4. Code Training Devices

a. When elaborate code equipment and distribution systems used in service schools are not available or are impractical, you can use a number of substitute devices that are in Army supply. You can start a code program in your field unit with as little equipment as a code oscillator and a hand key.

b. The tape method of instruction involves using equipment that automatically reproduces audible code practice signals previously recorded in ink on paper tape. Code signals may be presented at varying speeds depending on the teaching pattern being followed. The tape method is particularly good for teaching large groups. Code practice tapes are made of $\frac{3}{8}$ -inch-wide rolls of paper with inked lines which produce IMC signals when used with appropriate equipment. The tapes are prepared for beginners and advanced students. Loudspeakers or headsets are used for student reception of the code signals.

c. The recorder-reproducer method uses equipment that records code, voice, music, noise, or combinations thereof on metallic wire, magnetic tape, or phonograph records. Code signals are reproduced through speakers or headsets. This method is useful not only for receiving but also for recording students sending so that they can see where they need practice.

d. The items described in *a*, *b*, and *c* above

are stock items available through normal supply channels. Refer to appendix A for information on specific items.

6-5. Code Practice System

a. One type of a newly developed code practice system consists of two parts, the *recorder-reproducer* for the student and the *control device* for the instructor. This tape recorder-reproducer provides 5 1/2 hours of code instruction recorded on 22 channels which are selected by means of a dial. The self-instruction system operates from batteries or line voltage so the student can practice code anywhere. The prerecorded tape can be used to teach IMC or as practice exercises to maintain code proficiency. In addition to receiving practice, it

also provides for sending practice. The student can send code with the hand key and record it on the drill tape. Then he can play back both the master track and the drill track for comparison of his sending with the master track.

b. The instructor control device completes the code practice system when group instructions are required. You can transmit your voice, code exercises, or recorded instructions from any audio source with the special instructor headset through the instructor control. This is accomplished by wireless communication to the student. The instructor headset can also be used to monitor individual student progress by simply plugging into the recorder-reproducer.

APPENDIX A

REFERENCES

1. Department of the Army publications

- | | |
|-------------------|---|
| AR 320-50 | Authorized Abbreviations. |
| FM 21-6 | Techniques of Military Instruction. |
| FM 24-18 | Field Radio Techniques. |
| DA Pam 108-1 | Index of Army Films, Transparencies, GTA Charts, and Recordings. |
| DA Pam 301-1 | Index of Administrative Publications. |
| DA Pam 310-3 | Index of Doctrinal Training and Organizational Publications. |
| DA Pam 310-4 | Index of Technical Manuals, Technical Bulletins, Supply Manuals, (Types 7, 8 and 9), Supply Bulletins, and Lubrication Orders. |
| DA Pam 310-5 | Military Publications Index of Graphic Training Aids and Devices. |
| AR 320-5 | Dictionary of United States Army Terms. |
| TM 11-437A | Code Training Set AN/GSC-T1A. |
| TM 11-2093-10 | Operator's Manual Code Practice Equipments
EE-94-F, EE-95-F, EE-96-D, EE-96-E, and EE-96-F, and
Telegraphic Code Trainers AN/FGC-T1, AN/FGC-T2, AN/FGC-T3, and AN/FGC-T4. |
| TM 11-2548 | Recorder-Reproducers RD-31/U and RD-31A/U. |
| TM 11-2583A | Sound Recorder-Reproducer Sets AN/TNH-2A and AN/TNH-2B. |
| TM 11-2584 | Sound Recorder-Reproducer RD-87A/U. |
| TM 11-5533 | Code Recorder RD-60/U. |
| TM 11-5835-212-15 | Operator, Organizational, Field and Depot Maintenance Manual Recorder-Reproducer, Sound. RD-173/UN and RD-173A/UN. |
| TM 11-5835-223-15 | Operator, Organizational, DS, GS, and Depot Maintenance Manual, Including Repair Parts and Special Tool Lists
Recorder-Reproducer RD-173B/UN. |
| TM 11-6940-201-10 | Operator's Manual Oscillators VO-3-D, VO-3-E and VO-3-F. |

2. Training Film

- | | |
|------------|---|
| TF 11-3697 | International Morse Code, Hand Sending. |
|------------|---|

APPENDIX B

BASIC IMC LESSONS 1 THROUGH 4

Note to the Instructor:

The following Basic IMC Lessons will serve as a guide for you to implement a code program in your unit. These lessons require no more equipment than a code oscillator and a hand key.

Basic IMC Lesson 1

When someone speaks of learning a new language, we usually visualize months of pronunciation practice and building a vocabulary of at least a thousand words. In the International Morse Code language you are about to learn, you have only to build a vocabulary of 26 letters and 10 numerals, and an entire method of communication is available to you. Do you know of any learning process where you can get so much for so little? If you remain in the military service, you will find 05B or 05C to be an excellent MOS. In civilian life, electronic communication offers almost unlimited opportunities. Or you may wish to join the thousands who find radio to be a fascinating hobby.

This first lesson in International Morse Code contains nine letters. There will be a number of presentations, varied so that the learning process will be as pleasant as possible. First you will hear each letter and its phonetic name, followed by the International Morse Code voice imitation, then the code signal transmitted five times.

Have pencil and paper ready. Print each letter as it is transmitted.

Now you will hear double transmissions of each letter, followed by immediate identifica-

E or Echo. Dit. (E E E E E)
I or India. Didit. (I I I I I)
S or Sierra. Dididit. (S S S S S)
T or Tango. Dah. (T T T T T)
M or Mike. Dahdah. (M M M M M)
O or Oscar. Dahdahdah. (O O O O O)
A or Alfa. Didah. (A A A A A)
N or November. Dahdit. (N N N N N)
W or Whiskey. Didahdah. (W W W W W)

We will repeat these characters now, calling each letter by its phonetic name, giving the vocal imitation, and then the International Morse Code, or IMC, signal transmitted five times.

Continue to print each letter as it is transmitted.

Echo. Dit. (E E E E E)
India. Didit. (I I I I I)
Sierra. Dididit. (S S S S S)
Tango. Dah. (T T T T T)
Mike. Dahdah. (M M M M M)
Oscar. Dahdahdah. (O O O O O)
Alfa. Didah. (A A A A A)
November. Dahdit. (N N N N N)
Whiskey. Didahdah. (W W W W W)

tion. Print each letter as it is identified.

E E I I S	S T T M M	O O A A N	N W W E E	I I S S T
T M M O O	A A N N W	W O O S S	T T I I A	A N N M M
A A E E T	T N N W W	O O I I M	M E E S S	O O A A E
E M M I I	N N T T S	S O O T T	N N A A M	M W W I I

In the exercise just completed, you were told immediately which letter the signal represented. In the following exercise, you will have approximately 3 seconds to see if you can identify and print the correct letter. If you do not

recognize the code signal, leave the space blank, and then print the correct letter in the top square when the phonetic callback is given. (3 second delay)

T S M I A	O E N W I	O T S I M	E A W N A	W O T S I
A N M T E	A N I O M	T I E W S	W O N A E	T O N A I
W M M S A	I T M E O	M T S E W	N A O E W	S I N W E
N O A M S	I A N E T	S M E O I	O T N A W	A W O M S

How many of these 100 code characters were you able to recognize and record correctly? Look over your paper for a moment and take note of any characters that were difficult for you to identify.

Due to the similarity of construction of some IMC characters, students sometimes confuse one letter with another. Remember, you are concerned only with sound patterns. Listen to a review of the first nine characters and try to hear them as the letters they represent.

E or Echo. Dit. (E E E E E)

E T T E T	S O S S O	A A N N A	I M I M I	T E E T T
W O S W S	N N A A A	M O I M I	S O O S O	N N A A N

(Call back)

In the exercise just completed you had 3 seconds to identify and record each letter. Now you will receive an exercise of lesson 1 characters, in random order, with the time shortened to 2 second intervals between characters,

O M E I T	W S A E M	S A N T I	E W O W T	S I A O M
-----------	-----------	-----------	-----------	-----------

(Call back)

Each lesson concludes with a progress check at a speed of 5 groups per minute. You will now receive 5 practice groups at this speed,

M E T A W	N O A S I	O M E T I	T S W I E	A N O S T
-----------	-----------	-----------	-----------	-----------

(Call back)

Now turn to the progress portion of your paper. During the remainder of the period you will receive a progress check on the nine letters of this lesson.

T or Tango. Dah. (T T T T T)
 I or India. Didit. (I I I I I)
 M or Mike. Dahdah. (M M M M M)
 S or Sierra. Dididit. (S S S S S)
 O or Oscar. Dahdahdah. (O O O O O)
 A or Alfa. Didah. (A A A A A)
 N or November. Dahdit. (N N N N N)
 W or Whiskey. Didahdah. (W W W W W)

You will now receive an exercise consisting of five-letter code groups, with a callback following each group. The characters most often confused will appear within the same group. (3 second delay)

and 5 seconds between groups.

Have pencils ready. Record each letter as soon as you recognize it. If you miss a letter, leave the square blank and get the next one.

followed by a callback so you can check your accuracy.

Stand by.
 (Progress test No. 3)
 (Approximately 600-cycle tone)

Basic IMC Lesson 2

The second lesson or unit of International Morse Code consists of eight letters and one numeral.

Your practice this period will be devoted almost entirely to learning these nine new code characters. You will have only a brief review of the characters of lesson 1 immediately prior to the progress check.

Let's begin practice by learning the code sounds of the characters of lesson 2.

B or Bravo... Dahdididit... (B B B B B)
 C or Charlie... Dahdidahdit... (C C C C C)

(Call back 1 second after third repetition)

B B B C C C D D D G G G Q Q Q X X X Y Y Y Z Z Z 0 0 0

Once more:

(Repeat as above)

This is the sound of B or Bravo. Dahdididit.
 (B B B B B)

This is C or Charlie. Dahdidahdit. (C C C C C)

This is D or Delta. Dahdidit. (D D D D D)

This is G or Golf. Dahdahdit. (G G G G G)

This is Q or Quebec. Dahdahdidah. (Q Q Q Q-Q)

This is X or X-ray. Dahdididah. (X X X X X)

This is Y or Yankee. Dahdidahdah. (Y Y Y-Y Y)

This is Z or Zulu. Dahdahdidit. (Z Z Z Z Z)

B B C C B	B C C D D	C C D D G	G D D G G	Q Q G G Q
Q G G Q Q	X X Q Q X	X Y Y X X	Y Y Q Q B	B Y Y Z Z
Y Y Z Z X	X C C Z Z	0 0 D D Z	Z 0 0 Y Y	G G Q Q 0
0 X X Y Y	Z Z C C B	B D D G G	Q Q X X Y	Y Z Z 0 0

D or Delta... Dahdidit... (D D D D D)
 G or Golf... Dahdahdit... (G G G G G)
 Q or Quebec... Dahdahdidah... (Q Q Q Q Q)
 X or X-ray... Dahdididah... (X X X X X)
 Y or Yankee... Dahdidahdah... (Y Y Y Y Y)
 Z or Zulu... Dahdahdidit... (Z Z Z Z Z)
 And the numeral 0... Dahdahdahdah...
 (0 0 0 0 0)

Each of these code characters will now be sounded three times followed by its phonetic name. Listen to the signal as it is being repeated and then print the letter or numeral as the phonetic callback is given.

And this is 0. Dahdahdahdah. (0 0 0 0 0)

The more often you respond correctly to individual code signals at slow speeds, the easier it will be for you to increase your speed of recognition. The following code signals will be sounded and identified immediately after being sent. Listen closely to the sound of the signal and then print the letter or numeral as the phonetic callback is given. Each signal will be sounded again after first being sent and identified.

... Ready...

In your next exercise, you will be given a short period of time to see if you can recognize any of these code characters before their phonetic names are announced. If you do not re-

cognize a signal, leave a blank space on your paper, then enter the letter or numeral in the top row of squares as the phonetic callback is given.

(Call back singles) (2-second reinforcement)

0 B D Z 0	B 0 C B 0	C B Z G C	Q D 0 B X	G D B Q Y
0 X Z C B	Z 0 G D Y	C D 0 X G	C G C Q X	0 Y X 0 B
D Y B G Z	Q B Z C X	D 0 G C Q	X B 0 Z B	D Y Q D Z
G X D C B	0 C Y Q X	Y Z G 0 X	Q G 0 C D	Z Y B C Z

Take a few moments and review your paper. You have just received 100 code characters. How many did you copy correctly? (Pause 30 seconds)

If all code characters were as easy to learn as the numeral 0, IMC would not be a challenge. What makes code difficult for some people to learn is, first, poor concentration re-

... Ready ...

(Call back after each group) (3 seconds after each group)

(3-second spacing between characters)

Y C B D B	G Z G Z G	C Y C Y C	Q Z Q Z Q	X B X B X
Z B Z B Z	D G D G D	Q X Q X Q	Y C Y C Y	D B D B D
G G Z Z G	X Y X Y X	Q Y Q Q Y	D D B B D	C C Y Y C
D G D G D	Z Q Z Q Z	X X Y Y X	B B D D B	C Y C C Y

To qualify on each of the 4 basic lessons, you must be able to copy at least 15 consecutive groups with a maximum of 4 errors. The speed of the progress check is 5 groups per minute. This means that during the practice portion of each period you must not only learn each signal, but you must be able to recognize each one in a very short period of time.

To assist you in increasing your speed of ... Ready ...

(Call back after fifth group)

Z G Q C C	X G Q 0 B	G X 0 G C	Z Y X B C	Z B D Y Q
-----------	-----------	-----------	-----------	-----------

See if you can recognize the nine code characters of lesson 2 transmitted at 5 groups per

(Call back after fifth group)

Y Z B G Q	C X D 0 Q	D G Z Y B	X Q B G D	Y Z D X Q
-----------	-----------	-----------	-----------	-----------

All progress checks on basic code contain characters from the previous lesson. Don't for-

(Call back one phonetic for both characters)

E E	I I	S S	T T	M M	O O	A A	N N	W W
-----	-----	-----	-----	-----	-----	-----	-----	-----

Turn to the progress check portion of your paper. For the remainder of the period, you will receive 5-character code groups at the

sulting in not hearing the code character correctly, and second, confusion between characters because the code sounds have not been thoroughly learned.

During your next exercise, you will hear and record code characters in groups of five. The characters most often confused will be appearing within the same group.

recognition, the following 5-character code groups will be transmitted at progressively faster speeds. You will hear and record five groups. Then you will be given a phonetic call-back so that you may check your reception.

You will have a time interval of approximately 2 seconds between characters, and approximately 4 seconds between each group during the transmission of the first five groups.

minute.

get the nine code characters learned on lesson 1.

speed of 5 groups per minute.

(Progress test No. 3)

(Approximately 600-cycle tone)

Basic IMC Lesson 3

You have learned to readily recognize 18 International Morse Code characters and are now

ready to advance to lesson 3. In lesson 3 you will learn nine new characters. Upon comple-

tion of this lesson you will have learned all of the 26 letters and 1 numeral. You are already more than halfway to your basic goal, since the numerals are easier to learn than the letters.

First you will hear the phonetic name of each letter, followed by the IMC sound transmitted five times. Following the presentation of the nine lesson 3 characters, you will be given a brief review of lessons 1 and 2. Finally you will be given a progress test of the entire alphabet and the numeral zero.

Ready with paper and pencil?

Print each letter properly as it is transmitted in IMC:

Foxtrot. Dididahdit. (F F F F F)
 Hotel. Didididit. (H H H H H)
 Juliet. Didahdahdah. (J J J J J)
 Kilo. Dahdidah. (K K K K K)
 Lima. Didahdidit. (L L L L L)
 Papa. Didahdahdit. (P P P P P)

(1-second reinforcement)

FFHHJ	JKKLL	PPRRU	UVVFF	HHJJK
KLLPP	RRUUU	VUUUV	FFJLL	LKKHH
PPRRK	KPPFF	HHJJK	KRRHH	UUFFV
VJJKK	PPLLR	RVVUU	FFJJH	HKKLL

In the previous exercise you were told immediately which letter the signal represented. In the following exercise you will have approximately 3 seconds to see if you can identify the letter and the signal it represents.

FJFJH	KHGKP	LPRUR	UVFVF	HJHJL
KLKPR	PURVU	VFHFJ	HKJLP	KLPUR
VRUVR	JKFJL	HFHUF	VRPUP	RKKVH
JFHLK	KPKLR	PURVU	FVHFJ	HKLPK

You have just received 100 code characters. Take a few moments and review your paper. How many code characters were you able to recognize?

(Pause for students to look over papers)

On each of the four basic lessons most of the similar sounding characters appear as new characters to be learned. Here are the nine code characters of lesson 3, presented in the order of their similarity.

Romeo. Didahdit. (R R R R R)
 Uniform. Dididah. (U U U U U)
 Victor. Dididah. (V V V V V)

We will repeat these nine characters in the same manner. Listen carefully and associate each letter with its IMC sound pattern.

Foxtrot. Dididahdit. (F F F F F)
 Hotel. Didididit. (H H H H H)
 Juliet. Didahdahdah. (J J J J J)
 Kilo. Dahdidah. (K K K K K)
 Lima. Didahdidit. (L L L L L)
 Papa. Didahdahdit. (P P P P P)
 Romeo. Didahdit. (R R R R R)
 Uniform. Dididah. (U U U U U)
 Victor. Dididah. (V V V V V)

Now you will hear these same code characters with a callback after each transmission. Print the letter as the phonetic callback is given. The same signal will be sounded again after first being sent and identified phonetically.

If you do not recognize the code signal, leave the space blank, and then print the letter representing the code character in the square directly above when the phonetic callback is given.

F or Foxtrot. Dididahdit. (F F F F F)
 L or Lima. Didahdidit. (L L L L L)
 H or Hotel. Didididit. (H H H H H)
 V or Victor. Dididah. (V V V V V)
 U or Uniform. Dididah. (U U U U U)
 K or Kilo. Dahdidah. (K K K K K)
 R or Romeo. Didahdit. (R R R R R)
 P or Papa. Didahdahdit. (P P P P P)
 J or Juliet. Didahdahdah. (J J J J J)

For your next exercise you will hear and

record code characters in groups of five with a phonetic callback after each group. The sim-

UVUVU	FLLFL	KRRKK
JPPJJ	RRKKR	FLLLL
FLFLF	HHVHV	PJPJP
HHVHV	FLLFF	KKRRK

ilar sounding characters will appear within the same group.

VHHVU	HVUHV
UUVVU	JPJPP
JJJPP	RRKKR
UVVUU	JPPJH

To qualify on a progress check you must be able to recognize code characters within 1½ seconds. In the previous exercise the code characters were separated by an interval of 3 seconds. To assist you in increasing your

speed of character recognition, in the following exercise you will hear and record five 5-character code groups with a 2-second interval between characters, and a 5-second interval between groups.

UHLRL	KRHUF	FRPJK	HVHLF	KLJPU
-------	-------	-------	-------	-------

(Call back these five groups)

The next five groups will be at the speed of 5 groups per minute.

FVURJ	HFLKP	RLHUV	PURKJ	VHFKH
-------	-------	-------	-------	-------

(Call back the above)

In review, here are the code characters of lessons 1 and 2. Each character will be sounded twice followed by its phonetic name.

EE	II	SS	TT	MM	OO	AA	NN	WW
BB	CC	DD	GG	QQ	XX	YY	ZZ	Ø Ø

Turn to the progress check portion of your paper. During the remainder of the period you will receive a test on the 26 letters and 1 numeral contained in lessons 1, 2, and 3.

Stand by.
(Progress Test No. 3)
(Approx 600-cycle tone)

Basic IMC Lesson 4

This is the fourth and last basic lesson in International Morse Code. It introduces nine new characters which are the numerals one through nine (niner). You will find that these characters are quite easily learned. Numerals one through five all begin with a dit and have a progressive pattern, while six through nine begin with a dah and contain a dah progression.

Listen attentively as the numerals are introduced to you. You will hear each numeral spoken, followed by its vocal imitation, then five transmissions of that numeral in International Morse Code.

After the numerals have been presented, you will receive exercises to reinforce your recognition of these new characters. Near the end of

the period, you will receive a review of all characters previously learned and finally you will receive a progress check.

Now, let's learn the nine numerals. Have pencil and paper ready and print each character as it is transmitted.

One ... Didahdahdah ... (1 1 1 1 1)
Two ... Dididahdah ... (2 2 2 2 2)
Three ... Didididah ... (2 2 2 2 2)
Four ... Didididah ... (4 4 4 4 4)
Five ... Didididit ... (5 5 5 5 5)
Six ... Dahdididit ... (6 6 6 6 6)
Seven ... Dahdahdidit ... (7 7 7 7 7)
Eight ... Dahdahdahdit ... (8 8 8 8 8)
Niner ... Dahdahdahdit ... (9 9 9 9 9)

Now listen to these numerals again. Con-

tinue to print each number as it is transmitted.
(Repeat as above)

You will now hear double transmissions of each numeral. Each transmission will be fol-

(1-second reinforcement)

11995	57744	33224	47711	99336
62255	44221	16655	88337	71199
66442	27788	44229	95577	66885
51122	77993	36644	22557	76688

Here is another exercise with single transmissions of the new characters; however, there will be 3-second pauses between transmissions for you to recognize and print the characters.

93612	87439	25714	63986	42538
19857	28943	67524	19368	41652
45681	29133	27854	96745	81397
62741	25896	86459	37415	89234

Let's go back now and review these nine new characters. Don't anticipate and don't try to count the dits and dahs. Listen to the entire sound patterns and hear them as the numerals they represent.

One... Didahdahdah... (11111)

Two... Dididahdah... (22222)

If you do not recognize a signal or record it incorrectly, print the correct numeral in the top block as the callback is given at the end of the pause.

Three... Dididahdah... (33333)

Four... Didididah... (44444)

Five... Didididit... (55555)

Six... Dahdididit... (66666)

Seven... Dahdahdidit... (77777)

Eight... Dahdahdidit... (88888)

Niner... Dahdahdahdit... (99999)

In the next exercise you will hear and record numerals in groups of five with a callback after each group.

39427	91865	46587	12395	72413
-------	-------	-------	-------	-------

Now, try to increase your speed of response in an exercise with 2 seconds between characters and 5 seconds between groups.

54752	81346	97132	75429	61642
-------	-------	-------	-------	-------

The next five groups of numerals will be sent at a speed of 5 groups per minute.

77419	56328	47612	95821	85649
-------	-------	-------	-------	-------

Here is a review of lessons 1, 2, and 3. Each character will be sounded twice, followed by its phonetic name.

EE	II	SS	TT	MM	OO	AA	NN	WW
BB	CC	DD	GG	QQ	XX	YY	ZZ	00
FF	HH	JJ	KK	LL	PP	RR	UU	VV

Now turn to the progress check portion of your paper. During the remainder of the period you will receive a test on the 26 letters and 10 numerals. The letters and numerals will not be mixed within a group.

Stand by.

(Progress test No. 3)

APPENDIX C

LESSONS CONTAINING ALL 36 CODE CHARACTERS

These 20 lessons may be used for advancing speed of code recognition or for basic code practice.

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LESSON 1

Doubles

5	5	D	D	N	N	4	4	G	G	S	S	7	7	Z	Z	1	1	M	M	0	0	U	U	T	T
T	P	P	H	H	3	3	9	9	Y	Y	X	X	V	V	W	W	R	R	I	I	F	F	A	A	
K	K	B	B	C	C	J	J	L	L	O	O	8	8	2	2	E	E	Q	Q	6	6	D	D	J	J
J	4	4	8	8	Q	Q	7	7	B	B	F	F	2	2	U	U	1	1	G	G	L	L	0	0	

Singles

W	O	K	D	L	Z	0	F	S	N	O	1	K	D	O	B	0	6	L	L	S	7	9	Q	S
C	9	4	A	G	P	G	J	U	1	G	Z	3	Y	U	I	S	F	E	9	W	N	U	G	E
0	R	X	O	7	8	G	2	U	T	6	I	H	P	4	N	P	E	C	W	9	7	M	V	B
6	2	6	U	3	0	4	Z	U	0	J	V	T	J	B	I	7	F	A	8	J	W	A	5	2

5 GPM

B	O	W	9	C	B	A	7	J	O	C	D	8	A	O	J	7	X	8	P	9	Y	T	2	M
0	D	N	E	9	V	G	O	V	U	G	D	L	D	W	Q	5	Q	5	E	S	4	L	K	1
6	K	U	F	4	M	2	X	T	Z	2	G	Y	Q	X	G	3	H	Y	S	H	B	V	Z	N
L	1	G	S	A	7	U	R	J	4	3	8	J	C	R	H	Z	F	5	A	I	R	I	P	K

LESSON 2

Doubles

9	9	Y	Y	P	P	A	A	M	M	S	S	R	R	Z	Z	I	I	V	V	W	W	C	C	6
6	X	X	O	O	5	5	H	H	T	T	E	E	K	K	3	3	N	N	8	8	2	2	C	C
1	1	N	N	6	6	9	9	T	T	O	O	A	A	B	B	M	M	4	4	K	K	U	U	L
L	X	X	E	E	H	H	0	0	P	P	3	3	F	F	Y	Y	R	R	I	I	Q	Q	J	J

Singles

X	K	4	Q	J	5	9	U	M	3	K	8	G	D	D	C	G	2	3	1	V	B	D	T	T
O	W	X	R	F	P	G	C	0	6	M	X	9	8	5	8	C	Q	D	A	8	L	Y	J	M
C	F	H	Q	X	7	5	3	Z	1	E	R	1	R	7	W	V	I	3	4	R	H	G	Q	J
B	5	1	O	L	M	A	S	E	P	8	5	Y	5	K	7	L	X	N	Y	2	Y	X	Z	Y

5 GPM

L	O	E	I	G	9	T	0	B	0	1	K	M	8	F	R	1	C	K	M	N	F	T	Z	H
S	N	W	U	P	W	6	2	I	3	V	3	X	5	P	4	E	Y	7	L	2	K	E	S	T
7	S	0	Y	G	C	I	5	7	U	B	M	K	8	G	3	R	Z	1	O	L	4	W	A	F
9	F	K	3	J	E	H	8	F	6	D	U	4	9	C	I	L	X	X	1	V	O	H	C	M

LESSON 3

Doubles

V	V	S	S	Z	Z	G	G	7	7	W	W	D	D	5	5	1	1	H	H	Z	Z	6	6	R
R	G	G	4	4	Q	Q	P	P	9	9	B	B	I	I	K	K	V	V	8	8	3	3	W	W
M	M	F	F	D	D	2	2	L	L	5	5	X	X	E	E	S	S	0	0	U	U	O	O	Y
Y	A	A	C	C	7	7	T	T	J	J	N	N	R	R	L	L	F	F	G	G	A	A	1	1

Singles

E	W	H	H	N	O	D	O	4	K	F	R	B	4	Y	9	S	H	I	N	2	1	V	P	3
M	1	N	K	H	T	F	M	E	A	Q	B	C	A	S	Z	P	Z	K	2	T	L	V	I	T
J	2	Y	X	Z	1	X	N	Y	9	0	Y	N	N	Q	6	1	A	1	G	X	B	5	1	0
7	8	Z	7	B	Y	W	V	I	3	R	1	R	7	4	P	X	C	R	F	0	L	E	M	A

5 GPM

Q	0	D	Z	U	P	P	W	A	2	T	9	Q	X	0	V	R	Y	N	5	P	D	H	B	E
S	Z	L	G	I	N	4	J	8	6	T	5	J	M	6	W	7	2	Y	B	3	O	N	Q	A
6	Q	0	F	7	9	S	G	1	I	3	5	H	R	K	0	Q	H	U	W	E	4	W	X	G
1	N	L	R	8	D	V	E	A	8	0	P	4	J	Z	T	K	C	K	U	M	O	I	R	Y

LESSON 4

Doubles

6	6	E	E	8	8	4	4	3	3	P	P	2	2	T	T	7	7	V	V	Y	Y	Z	Z	X
X	H	H	S	S	O	O	N	N	M	I	I	5	5	0	0	K	K	U	U	C	C	B	B	W
D	D	J	J	Q	Q	N	1	1	6	Q	Q	A	A	7	7	R	R	G	G	L	L	K	K	I
I	X	X	H	H	F	F				6	9	9	0	0	W	W	Z	Z	P	P	M	M	C	

Singles

Y	2	5	E	G	S	V	N	O	L	D	M	X	9	8	G	C	0	6	L	B	3	T	D	9
B	D	T	T	E	B	S	G	8	I	1	A	M	B	W	M	5	9	U	M	K	4	Q	J	Z
O	J	W	8	5	7	F	A	8	F	V	8	D	P	H	3	0	6	D	7	H	6	2	6	U
K	Z	9	F	2	5	N	P	E	I	A	H	P	4	6	U	O	I	J	R	5	4	2	J	J

5 GPM

A	N	E	C	Z	T	N	5	M	G	6	D	2	I	9	H	S	8	4	K	N	Q	V	5	T
1	Y	M	X	7	3	O	2	B	S	D	8	J	O	F	L	7	3	U	I	P	V	A	P	3
G	0	A	P	B	B	L	Y	W	B	7	V	J	U	2	C	R	Z	9	1	F	X	2	T	W
X	9	J	4	Y	L	D	Z	M	E	H	F	O	6	5	G	Q	S	C	V	R	Q	N	O	3

LESSON 5

Doubles

D	D	T	T	J	J	3	3	5	5	Y	Y	8	8	E	E	S	S	V	V	N	N	O	O	2
2	B	B	U	U	4	4	M	M	4	4	1	1	L	L	G	G	Z	Z	I	I	J	J	U	U
V	V	D	D	9	9	6	6	H	H	C	C	A	A	Q	Q	W	W	8	8	P	P	3	3	2
2	X	X	T	T	S	S	B	B	5	5	R	R	7	7	N	N	E	E	F	F	0	0	K	K

Singles

Z	3	8	C	H	Q	K	S	7	R	Q	G	0	3	G	C	J	U	I	G	C	L	H	T	0
S	9	Q	S	V	1	I	K	U	W	U	K	4	U	9	C	Z	0	F	Z	Y	K	D	L	S
N	H	H	W	S	T	A	C	B	Q	X	V	Q	0	4	R	M	N	P	F	R	E	M	F	7
G	Y	T	3	W	3	P	V	L	K	E	4	O	D	O	T	P	5	E	X	W	I	V	A	2

5 GPM

B	Y	2	7	W	6	M	J	5	T	6	8	J	4	N	I	G	L	Z	S	E	B	H	D	P
5	N	Y	R	V	0	X	Q	9	T	2	A	W	P	P	U	0	D	0	Q	M	C	H	O	V
1	X	X	1	I	C	9	4	U	D	6	F	8	H	E	J	3	K	F	9	F	A	W	4	L
O	1	Z	R	3	G	8	K	M	B	U	7	5	A	I	C	G	Y	Z	S	7	T	S	E	K

LESSON 6

Doubles

O	O	Y	Y	P	P	8	8	I	I	1	1	O	O	6	6	R	R	F	F	L	L	Y	Y	V
V	C	C	D	D	S	S	2	2	K	K	9	9	T	T	E	E	W	W	0	0	N	N	B	B
J	J	H	H	Q	Q	4	4	M	M	3	3	Z	Z	X	X	U	U	7	7	G	G	5	5	A
A	F	F	9	9	R	R	X	X	8	8	W	W	Q	Q	6	6	J	J	N	N	I	I	L	L

Singles

P	H	J	2	O	G	8	R	K	5	T	P	1	U	7	A	C	Y	F	7	6	5	N	V	7
U	2	H	9	N	J	G	C	Q	W	Y	G	I	U	T	Z	5	V	M	6	E	4	E	A	I
N	B	3	Q	I	1	6	J	4	K	C	J	W	K	3	I	7	S	4	8	8	K	L	0	R
M	O	B	5	X	B	T	M	0	W	2	S	1	0	F	L	H	C	9	L	1	2	4	P	8

5 GPM

B	5	3	E	Q	4	S	0	K	1	A	W	C	W	4	3	7	O	8	L	P	0	8	P	N
X	1	2	Z	O	2	Q	6	N	T	7	5	Q	B	I	A	N	0	S	L	A	D	R	9	7
F	Q	S	R	6	O	F	D	Z	T	L	9	T	C	5	2	H	U	Z	G	H	E	M	0	G
J	R	K	B	C	X	I	N	W	D	K	U	G	2	9	S	H	6	F	9	V	E	1	Y	M

LESSON 7

Doubles

D	D	V	V	1	1	∅	∅	K	K	7	7	S	S	U	U	Z	Z	3	3	Y	Y	5	5
O	4	4	P	P	C	C	E	E	2	2	B	B	A	A	M	M	G	G	H	H	T	T	K
J	J	6	6	O	O	8	8	X	X	4	4	U	U	C	C	G	G	P	P	F	F	W	W
E	Q	Q	3	3	D	D	V	V	L	L	M	M	B	B	A	A	N	N	7	7	Y	Y	∅

Singles

U	Q	D	F	S	F	H	D	W	R	Y	5	9	P	O	X	V	E	L	Z	S	Z	Y	3
1	R	Z	X	Y	2	3	D	Z	G	Q	V	∅	M	X	N	9	D	A	6	T	E	X	O
T	D	B	M	U	9	5	J	Q	4	K	8	9	X	M	6	O	C	G	3	I	V	W	7
I	U	J	C	I	E	P	N	4	P	H	A	5	8	W	J	8	A	F	7	U	6	2	6

5 GPM

X	1	J	3	P	K	V	R	V	Z	E	I	O	U	3	D	4	G	6	J	8	W	P	A
Y	U	8	T	L	T	7	5	B	H	C	X	4	F	V	M	Y	I	J	1	I	7	U	A
D	Q	G	5	O	4	P	∅	6	B	P	3	M	E	8	6	O	5	Y	∅	A	F	3	G
U	H	I	D	F	T	M	5	G	7	T	Q	W	9	Z	X	L	Z	6	8	Q	K	M	K

LESSON 8

Doubles

5	5	9	9	R	R	H	H	T	T	S	S	I	I	2	2	Z	Z	1	1	3	3	U	U
W	R	R	T	T	7	7	4	4	Q	Q	J	J	O	O	9	9	1	1	K	K	M	M	H
Z	Z	C	C	B	B	Y	Y	2	2	I	I	X	X	A	A	P	P	E	E	5	5	8	8
V	L	L	S	S	∅	∅	G	G	D	D	6	6	N	N	F	F	E	E	J	J	R	R	M

Singles

C	A	T	7	F	M	E	R	V	S	Q	9	S	∅	F	∅	Z	L	D	K	Y	G	3	Z
X	N	Y	B	5	1	O	2	K	L	V	P	3	O	D	O	4	E	S	W	H	H	N	Q
H	A	Z	M	1	3	O	A	O	∅	O	4	F	4	M	Q	5	7	D	M	D	N	3	V
∅	6	G	K	V	B	4	E	9	W	I	2	W	T	R	X	P	Y	C	5	S	L	O	A

5 GPM

S	Z	F	V	C	2	W	1	9	R	Y	T	W	E	R	2	V	8	I	J	S	X	H	J
X	3	U	H	S	B	C	N	N	4	1	A	K	J	C	D	∅	B	E	V	2	R	N	U
C	X	6	∅	X	K	Z	T	L	U	5	P	L	7	T	S	I	I	3	T	Y	A	∅	U
L	∅	N	2	S	4	B	O	1	6	C	W	H	W	A	G	7	D	X	9	Q	1	I	D

LESSON 9

Doubles

N	N	P	P	V	V	G	G	F	F	W	W	A	A	Y	Y	U	U	Q	Q	4	4	O	O
6	8	8	3	3	T	T	7	7	D	D	S	S	I	I	X	X	9	9	2	2	K	K	∅
C	C	Z	Z	5	5	∅	∅	H	H	1	1	L	L	C	C	U	U	9	9	L	L	∅	∅
G	H	H	F	F	P	P	Q	Q	S	S	4	4	7	7	E	E	3	3	D	D	I	I	N

Singles

T	8	N	6	J	9	N	4	H	W	E	F	P	X	T	B	8	G	1	6	5	I	2	G
Z	B	9	U	S	L	V	7	E	K	X	G	J	P	Y	M	T	9	A	U	3	U	C	4
Z	∅	2	7	H	5	Q	I	Y	7	6	8	J	Q	F	N	∅	L	Z	C	D	L	X	V
2	L	1	X	N	Y	D	H	R	8	K	1	B	P	S	S	Q	K	I	E	R	J	U	2

5 GPM

X	4	B	M	A	P	N	D	7	6	5	V	4	E	N	Y	B	2	Y	M	R	8	O	8
8	S	M	Q	9	2	L	J	Z	E	K	9	M	T	R	O	E	U	7	U	C	1	B	V
2	F	W	E	∅	I	W	J	9	4	I	H	6	R	3	V	K	C	8	Y	G	S	Q	V
5	3	P	R	J	N	G	Z	G	F	3	H	O	5	Q	Q	S	J	Z	Y	5	O	6	8

LESSON 10

Doubles

J	J	2	2	R	R	Y	Y	5	5	A	A	W	W	O	O	8	8	K	K	B	B	T	T	M
M	I	1	1	Z	Z	6	6	X	X	V	V	M	M	L	L	Y	Y	A	A	D	D	N	N	5
I	I	7	7	P	P	Z	Z	2	2	3	3	Ø	Ø	4	4	J	J	B	B	H	H	X	X	W
W	9	9	9	R	R	Q	Q	8	8	D	D	K	K	1	1	U	U	O	O	C	C	6	6	T

Singles

R	Q	B	C	A	T	S	W	H	H	N	O	D	O	4	E	K	L	V	P	3	B	5	1	O
I	U	J	C	G	3	Z	G	L	D	K	Y	Ø	F	Ø	Z	V	S	Q	9	S	7	F	M	E
5	T	T	D	B	U	6	2	6	8	A	F	7	5	8	W	J	4	H	P	A	I	E	P	N
Y	2	7	R	1	R	3	I	V	W	6	Ø	C	G	8	9	X	M	J	Q	4	K	M	U	9

5 GPM

M	3	P	B	6	Ø	P	4	O	5	G	Q	D	O	A	U	7	I	1	6	Z	L	X	Z	9
W	A	T	7	G	5	M	T	F	D	I	H	U	9	G	3	F	Q	Ø	I	8	V	2	R	E
W	T	Y	R	9	1	W	2	C	V	F	Z	S	4	K	M	K	Q	8	E	B	Ø	D	C	J
K	A	1	4	N	N	C	B	S	H	U	3	X	P	J	H	X	S	J	L	Y	7	L	N	R

LESSON 11

Doubles

E	E	V	V	G	G	F	F	M	M	K	K	B	B	H	H	5	5	L	L	S	S	J	J	R
R	9	9	X	X	C	C	Z	Z	W	W	U	U	Q	Q	8	8	E	E	7	7	6	6	V	V
1	1	T	T	N	N	O	O	D	D	2	2	A	A	4	4	Ø	Ø	P	P	F	F	3	3	I
I	Y	Y	G	G	A	A	H	H	X	X	M	M	E	E	7	7	P	P	N	N	Q	Q	R	R

Singles

8	G	I	F	U	3	Z	H	Q	U	1	R	Q	1	5	B	X	F	J	X	Y	D	U	S	X
Q	O	J	C	P	L	O	F	C	S	H	V	D	5	T	3	B	R	Z	E	2	3	S	K	J
R	N	D	6	Ø	S	Q	F	I	V	7	P	M	W	C	B	2	T	4	Y	K	X	O	2	4
4	R	7	B	H	Z	D	T	T	1	K	N	Z	W	V	B	6	G	9	N	N	1	5	Ø	5

5 GPM

X	S	U	D	Y	X	J	F	X	B	5	1	Q	R	1	U	Q	H	Z	3	U	F	I	G	8
1	Y	T	P	C	E	K	L	7	A	W	5	9	U	I	X	3	Q	T	A	K	W	W	M	4
3	A	2	S	D	M	6	X	2	D	Ø	V	L	O	Y	4	H	H	N	7	O	Ø	U	6	G
I	5	Z	8	B	E	I	6	Y	J	6	F	Z	S	8	L	L	G	9	J	1	Ø	8	J	V

LESSON 12

Doubles

K	K	2	2	Y	Y	8	8	B	B	L	L	C	C	3	3	G	G	6	6	1	1	W	W	I
I	V	V	D	D	O	O	T	T	4	4	F	F	9	9	S	S	Z	Z	Ø	Ø	J	J	5	5
U	U	J	J	U	U	A	A	1	1	Y	Y	F	F	M	M	K	K	2	2	L	L	D	D	B
B	C	C	O	O	X	X	8	8	4	4	9	9	S	S	6	6	Z	Z	E	E	3	3	Ø	Ø

Singles

4	M	W	W	K	A	T	Q	3	X	I	U	9	5	W	A	7	L	K	E	C	P	T	Y	1
4	I	5	9	3	V	8	Z	R	C	J	E	9	E	F	U	2	C	B	W	C	Q	T	G	0
G	6	U	Ø	O	7	N	H	H	4	Y	O	L	V	Ø	D	2	X	6	M	D	S	2	A	3
V	J	8	Ø	1	J	9	G	L	L	8	S	Z	F	6	J	Y	6	I	E	B	8	Z	5	I

5 GPM

2	S	Q	A	1	8	V	H	A	P	Ø	D	E	E	W	7	F	K	X	R	N	H	M	3	U
P	1	M	R	8	P	9	Ø	Y	A	A	G	K	J	L	7	P	4	9	O	M	M	G	7	N
K	W	W	M	5	2	8	X	L	C	X	Ø	4	S	F	3	3	Q	T	A	1	Y	T	P	P
W	M	B	N	6	Ø	2	M	Q	E	R	B	7	R	4	N	9	G	6	J	Ø	9	A	S	X

LESSON 13

Doubles

I	I	G	G	P	P	7	7	R	R	Q	Q	N	N	W	W	V	V	H	H	T	T	5	5	L	L	
L	N	N	T	T	W	W	8	8	R	R	I	I	O	O	P	P	Q	Q	C	C	K	K	9	9	L	L
S	S	3	3	F	F	U	U	5	5	J	J	0	0	Y	Y	X	X	D	D	2	2	B	B	7	7	
7	M	M	Z	Z	E	E	H	H	A	A	1	1	6	6	G	G	V	V	5	5	E	E	L	L	L	L

Singles

U	3	M	H	N	R	X	K	F	7	W	E	E	D	0	P	A	H	V	8	1	A	Q	S	2	2	2
N	7	G	M	M	O	9	4	P	7	L	J	K	G	A	A	Y	0	9	P	8	R	M	1	P	P	P
P	P	T	Y	1	A	T	Q	3	3	F	S	4	0	X	C	L	X	8	2	5	M	W	W	K	K	
X	S	A	9	0	J	6	G	9	N	4	R	7	B	R	E	Q	M	2	0	6	N	B	M	W	W	

5 GPM

K	4	P	2	I	N	0	5	1	N	C	W	M	P	G	W	L	N	B	Z	T	O	D	J	J	J
Z	4	T	2	B	S	C	F	O	G	9	Z	7	L	L	U	6	6	E	4	F	5	D	V	H	H
U	F	I	G	3	I	K	5	C	5	P	W	V	9	H	H	Q	H	Z	3	X	S	U	D	O	O
6	M	4	H	L	7	W	E	T	R	5	O	9	4	P	J	K	G	A	A	3	R	N	A	T	T

LESSON 14

Doubles

7	7	1	1	R	R	S	S	Y	Y	N	N	9	9	F	E	A	A	O	O	K	K	B	B	H	H
H	V	V	4	4	I	I	T	T	W	W	C	C	X	X	2	2	Q	Q	P	P	Z	Z	G	G	G
U	U	3	3	8	8	6	6	J	J	D	D	0	0	M	M	K	K	M	M	Z	Z	8	8	G	G
G	5	5	J	J	F	F	0	0	4	4	T	T	P	P	2	2	3	3	C	C	U	U	L	L	L

Singles

J	J	D	O	T	Z	B	N	L	W	G	P	M	W	C	N	1	5	0	N	1	2	P	4	K	K
H	V	D	5	F	4	E	6	6	U	L	1	7	Z	9	G	O	F	C	S	B	2	T	4	Z	Z
O	D	U	S	X	3	Z	H	Q	H	H	9	V	W	P	5	C	5	K	I	3	G	I	F	U	U
T	A	N	R	3	A	A	G	K	J	P	4	9	0	5	R	T	E	W	7	L	H	4	M	6	6

5 GPM

S	G	Y	O	H	Q	U	3	M	H	X	K	F	7	D	K	E	B	7	I	1	D	2	U	C	C
J	I	A	Q	S	J	8	0	1	Z	8	7	Y	X	3	T	9	M	U	Y	Y	6	I	E	L	L
Y	B	8	Z	5	G	C	R	Q	Y	A	1	8	1	S	O	L	V	0	7	L	D	2	X	6	6
Q	B	O	I	0	U	D	8	V	V	8	Z	R	C	N	R	J	E	9	E	F	F	H	P	K	K

LESSON 15

Doubles

1	1	D	D	R	R	6	6	B	B	H	H	9	9	S	S	O	O	Y	Y	N	N	I	I	7	7
7	A	A	V	V	W	W	E	E	Q	Q	X	X	E	E	2	2	S	S	9	9	T	T	4	4	4
M	M	R	R	F	F	N	N	G	G	K	K	7	7	0	0	J	J	3	3	A	A	Y	Y	P	P
P	8	8	5	5	X	X	U	U	D	D	Z	Z	Q	Q	L	L	V	V	H	H	C	C	B	B	B

Singles

C	U	2	D	1	I	7	B	E	K	D	7	F	K	X	H	M	3	U	Q	V	O	Y	G	S	S
L	E	1	6	Y	Y	U	M	9	T	3	X	Y	7	8	Z	1	0	8	J	S	Q	A	I	J	J
6	X	2	D	L	7	0	V	L	O	S	1	8	1	A	Y	Q	R	C	G	5	Z	8	B	Y	Y
K	P	H	F	F	E	9	E	J	R	N	C	R	Z	8	V	V	8	D	U	0	I	O	B	Q	Q

5 GPM

J	K	S	3	2	E	Z	R	B	3	T	5	D	V	H	S	C	F	O	L	P	C	6	O	Q	Q
4	2	O	X	K	Y	4	T	2	B	C	W	M	P	7	V	I	F	Q	S	0	6	D	N	R	R
5	0	5	1	N	N	9	G	6	B	V	W	Z	N	K	1	T	T	D	Z	H	B	7	R	4	4
O	G	T	W	C	Q	B	C	2	U	F	E	9	E	J	C	R	Z	8	V	3	9	5	I	4	4

LESSON 16

<i>Doubles</i>		O	O	9	9	I	I	W	W	8	8	J	J	9	9	3	3	2	2	Q	Q	S	S	C
1	1	4	V	V	6	6	T	T	Z	Z	W	W	O	O	M	M	P	P	G	G	H	H	F	F
K	4	N	N	1	1	I	I	D	D	∅	∅	Y	Y	R	R	L	L	7	7	E	E	U	U	5
5	A	A	B	B	X	X	4	4	3	3	K	K	N	N	C	C	8	8	9	9	M	M	T	T
<i>Singles</i>		2	3	N	Q	Z	6	7	∅	3	P	∅	A	V	7	I	R	8	R	B	R	T	G	B
X	W	8	1	S	T	I	U	Y	H	H	G	6	V	E	Z	2	K	4	5	N	E	L	4	Y
6	E	S	V	Y	F	M	4	9	L	A	G	F	D	S	W	K	7	3	6	Z	L	8	6	7
E	C	J	6	N	X	L	I	Z	A	C	5	7	H	V	9	∅	8	Z	4	E	L	A	C	D
O	∅																							
<i>5 GPM</i>		T	R	B	R	8	R	I	7	V	A	∅	P	3	O	7	6	Z	Q	N	3	2	W	X
B	G	L	E	N	5	4	K	2	Z	E	V	6	G	H	H	Y	U	I	T	S	1	8	C	6
Y	4	8	L	Z	6	3	7	K	W	S	D	F	G	A	L	9	4	M	F	Y	V	S	C	E
7	6	8	L	E	4	Z	8	∅	9	V	H	7	5	C	A	Z	I	L	X	N	6	J	∅	O
D	C	A	L	E	4	Z	8	∅	9	V	H	7	5	C	A	Z	I	L	X	N	6	J	∅	O

LESSON 17

<i>Doubles</i>		Q	Q	2	2	5	5	J	J	V	V	E	E	S	S	L	L	U	U	A	A	G	G	∅	
W	W	7	R	R	H	H	1	1	P	P	D	D	Z	Z	I	I	F	F	6	6	B	B	O	O	
∅	7	Y	Y	N	N	5	5	H	H	S	S	G	G	∅	∅	7	7	O	O	9	9	1	1	K	
X	X	I	J	J	3	3	R	R	W	W	Q	Q	A	A	P	P	D	D	Z	Z	L	L	6	6	
K	I	I	J	J	3	3	R	R	W	W	Q	Q	A	A	P	P	D	D	Z	Z	L	L	6	6	
<i>Singles</i>		9	5	S	3	∅	8	X	M	P	∅	K	U	U	7	T	3	F	O	X	M	W	F	D	
∅	9	5	S	3	∅	8	X	M	P	∅	K	U	U	7	T	3	F	O	X	M	W	F	D		
T	Y	C	2	Y	Q	K	H	Q	V	P	9	A	8	V	A	S	J	G	P	1	I	W	1	9	
D	M	J	C	R	K	Q	4	∅	W	Z	Q	4	V	K	L	S	P	4	G	R	W	K	W	5	
1	M	E	9	2	F	B	1	J	G	8	G	6	T	H	3	5	P	E	O	2	R	N	J	D	
<i>5 GPM</i>		F	W	M	X	O	F	3	T	7	U	U	K	∅	P	M	X	8	∅	O	3	S	5	9	∅
D	F	W	M	X	O	F	3	T	7	U	U	K	∅	P	M	X	8	∅	O	3	S	5	9	∅	
5	1	W	I	1	P	G	J	S	A	V	8	A	9	P	V	Q	H	K	Q	Y	2	C	Y	T	
9	W	K	W	R	G	4	P	S	L	K	V	4	Q	Z	W	∅	4	Q	K	R	C	J	M	D	
D	J	N	R	2	O	E	P	5	3	H	T	6	G	8	G	J	1	B	F	2	9	E	M	1	

LESSON 18

<i>Doubles</i>		4	4	F	F	E	E	U	U	2	2	B	B	C	C	M	M	8	8	Y	Y	V	V	T
X	X	4	K	K	C	C	2	2	J	J	∅	∅	1	1	3	3	U	U	7	7	Y	Y	A	T
9	M	6	6	N	N	D	D	T	T	4	4	Z	Z	V	V	O	O	R	R	P	P	5	5	Q
Q	F	F	G	G	8	8	I	I	E	E	X	X	S	S	W	W	H	H	B	B	L	L	N	N
<i>Singles</i>		J	T	Y	B	7	C	M	X	F	5	Q	9	2	O	N	I	X	S	Y	U	I	F	5
Z	B	J	T	Y	B	7	C	M	X	F	5	Q	9	2	O	N	I	X	S	Y	U	I	F	5
U	U	N	M	U	1	T	I	C	X	N	A	U	D	R	Q	N	B	2	P	J	H	3	B	D
H	5	F	E	M	U	P	M	1	2	V	4	G	A	V	W	C	Y	5	1	R	O	E	N	9
D	S	5	3	D	K	N	K	A	6	∅	F	Y	O	1	8	G	F	2	4	F	W	P	J	J
<i>5 GPM</i>		F	I	U	S	X	I	N	O	2	9	Q	5	F	X	M	C	7	B	Y	T	J	B	Z
D	B	3	H	J	P	2	B	O	Q	R	D	U	A	N	X	C	I	T	1	U	M	N	U	H
9	N	E	O	R	1	5	Y	C	W	V	A	G	4	V	2	1	M	P	U	M	E	F	5	U
X	C	2	O	3	N	L	I	U	L	J	B	7	I	K	4	A	S	3	R	D	3	5	S	D

LESSON 19

Doubles

8	8	U	U	O	O	L	L	B	B	3	3	D	D	J	J	V	V	S	S	M	M	G	G	
E	X	X	I	I	P	P	Y	Y	W	W	Z	Z	6	6	7	7	5	5	0	0	F	F	4	4
1	1	T	T	Q	Q	2	2	A	A	9	9	R	R	H	H	C	C	K	K	9	9	4	4	
G	V	V	D	D	P	P	7	7	A	A	N	N	S	S	8	8	0	0	W	W	E	E	Q	Q

Singles

L	9	G	Y	7	D	C	1	A	Z	I	V	Q	P	J	Q	H	9	P	E	C	U	6	5
9	W	Z	E	S	N	M	B	X	Q	5	P	8	T	0	Q	K	V	J	X	M	4	S	L
B	D	0	7	C	G	5	F	O	P	Q	P	X	T	3	M	R	T	Y	F	S	4	0	8
O	I	E	X	6	K	N	K	A	6	0	F	Y	O	1	8	G	F	2	4	F	W	P	J

5 GPM

M	5	6	U	C	E	P	9	H	Q	J	P	Q	V	I	Z	A	1	C	D	6	Y	G	9
K	L	S	4	M	X	J	V	K	Q	0	T	8	P	Q	Q	X	B	M	N	S	E	Z	W
8	8	0	4	S	F	Y	T	R	M	3	T	X	P	Q	P	O	F	5	G	C	7	0	1
J	J	P	W	F	4	2	F	G	8	1	O	Y	F	0	6	A	K	N	K	6	X	E	I

LESSON 20

Doubles

X	X	H	H	R	R	J	J	I	I	M	M	U	U	B	B	3	3	2	2	K	K	Z	Z
T	6	6	1	1	5	5	F	F	O	O	L	L	Y	Y	C	C	W	W	D	D	7	7	1
8	8	2	2	T	T	Q	Q	C	C	V	V	3	3	Y	Y	I	I	5	5	H	H	R	R
B	F	F	U	U	Z	Z	K	K	X	X	6	6	M	M	J	J	G	G	A	A	L	L	P

Singles

I	7	4	E	A	O	9	H	E	Y	R	H	L	6	V	8	W	D	H	8	7	K	W	W
R	U	3	T	Y	5	L	9	B	3	O	4	N	V	Q	D	S	Z	6	3	I	2	G	W
1	B	J	T	7	R	D	C	C	X	7	U	6	K	M	1	V	J	S	H	N	A	G	B
H	0	T	Z	Z	2	R	I	5	Y	2	T	U	Q	L	0	B	8	G	A	Z	G	N	9

5 GPM

0	W	W	K	7	8	H	D	8	W	V	6	L	H	R	Y	E	H	9	O	A	E	4	7
H	W	G	2	I	3	6	Z	S	D	Q	V	N	4	O	3	B	9	L	5	T	Y	3	U
1	B	G	A	N	H	S	J	V	1	M	K	6	U	7	X	C	C	D	R	7	T	J	B
2	9	N	G	Z	A	G	8	B	0	L	Q	U	T	2	Y	5	I	R	2	Z	Z	T	0

APPENDIX D

RECEIVING PRACTICE, 7 THROUGH 18 GPM

Use the following lessons to correct your code practice exercises. This will give you prompt reinforcement of your response so that you will be able to determine your progress.

7 GPM RECEIVING PRACTICE

SERIES 1

5 GPM

W4B DE 7YS NR3 310124R GR 23 BT

JKNRB GSDBQ CEHLT IMXUK QJRSO ZPVAF RNMJX QACYU LBNVH 91847

ZTGVF YADGE KTWSI FIDPW HYOEZ 31560 QLHFC RADPJ GWVKS YDZPH

ENZOF GRGKO NVBJN BT K

6 GPM

XT6 DE D7C NR5 242301R GR28 BT

WHKTR LJIFQ UUYME IOAXE 91842 VZAJ0 STNKH CGWPB KLNJX MUVSR

67305 GEBDR QQFGZ STLHF CEUMY AQVMO ILADN PIXUW ROEKY FDHBY

TZJWI WOKBG FMCKL 49536 ZJPNH TCVXU EGDBS NVMOQ BT K

7 GPM

RK4 DE S2Q NR8 311827R GR31 BT

GJNOQ RZTHE FIUYA KXLWI AUMYJ TLRSK IHEFV 27108 PBWZR YSADD

HWSDK BGKOR WCFMV 54971 AZVPG NQLFM CUNBZ DGRKI JLKYU LNSTZ

HEIUX 06823 AFESW DJYRB OJYTH IKAEP VTXOM DJNSZ EMXAW PGOLF

MCUNV BT K

7 GPM RECEIVING PRACTICE

SERIES 1

7 GPM

5BU DE VE2 NR9 190723R GR31 BT

BGWHC KLOQR 34072 VRJBN QIKEO XIKRG PHYZS BZADT UVAIF HWTDS

JLMQU YETFY DGQCV WRBTH MCUPA FRKWX 59186 WFMXA SVPGN YHBJS

EOHKQ MULTZ ODBNJ ZKVLK GDFIA YOLES ZNTUY IQEIJ WRNEK GDKAD

28136 BT K

8 GPM

WYG4 DE HS12 NR13 312358R GR35 BT

JKLST HCFIM VYAZP DGOQL FWEUM XITKE 57904 HNPBV ZGNOR WBYUM

OQCXU RZSHW JILYB 20817 FVSJT WSPGB OTHIM CYVMF CWTSO LJDHP

VAFES TWXOM QEAKF LQNDJ RVZBY GKNQR ZHEIU XAUNB ZDGRK 46593

JOTCU AYWPD 52941 QLFMU PZFGY BT K

7 GPM RECEIVING PRACTICE

SERIES 2

5 GPM

J3N DE 8SY NR1 Ø1Ø231R GR23 BT
NBRKJ SBDQG HTLEC MKUXI JSORQ AVFZP MXJRN AUCYQ BNVHL 14789
GEVZT AEGDY TISWK DWPIF OZZYH 17536 HCFLQ DJPAR VSKWG DHPZY
ZFOEN GOKRG BNJNV BT K

6 GPM

6TX DE 7DC NR4 131415R GR28 BT
WRKTH LJQFI UMEYU IOXEA 91842 ZAJOV TKHNS CWGPB KNLXJ ISRVM
673Ø5 GERBD GZFQQ SHFLT CMYUE QMOVA NUDAL WUIPX KYOER FHYBD
WUZJT GKOWB MCKFL 49536 HNPJZ TVXUC BSGDE NMVOQ BT K

7 GPM

1ZO DE 5U8 NR22 Ø12112R GR31 BT
GQOMJ REHZA FAJIU KIWLX AMYYU KSRLT VIFHE 271Ø8 RZWBW YDSAD
DSKWH GROKG VWMFC 54971 AGPVZ NMFLQ BZNCU DKIRG UYKJL LZNST
HXUET Ø6823 AWFES BRDJY HTYJO IPEAK MOVTX ZDJSN WAXME FGOLP
MCVNE BT K

7 GPM RECEIVING PRACTICE

SERIES 2

7 GPM

5BU DE VE2 NR9 190723R GR31 BT
BGWHC KLOQR 34072 VRJBN QIKEO XIKRG PHYZS BAZDT UVIFA TDSWH
JQULM ETYFY DVCQD WRHTB MAPUC RKWXF 86915 FWXAM GNPVS YJSHB
KQOHE MLTZU JBDON KVZLR AIGDF ESLOY ZTUYN IQJIE WLREN KADGD
13862 BT K

8 GPM

DCJ2 DE COW9 NR8 212356R GR35 BT
JSLKT GFIMC VYAPZ LQODG FWUME TKEIX 09475 HVBPN RONZG YUMBW
UXCOQ WHSZR LYBIJ 71802 FTJSV BGPSW MIOHT CVMFY CWTOS LJDPH
ESFVA MOWTX UEFKE LDJNQ RZVBY GRQNK UIZHE XBNUA KGRDZ 59364
CUTJO ADPWY 41952 QUMFL GYZFP BT K

7 GPM RECEIVING PRACTICE

SERIES 3

5 GPM

J3N DE 8SY NR1 010231R GR23 BT

NBRKJ SBDQG HTLEC UIXKM SQORJ VAZPF NJRXM CUYQA VLHNB 84197

VETZG GEDAY SIKWT FIPDW ZOEYH 31576 LCFHQ PADJR SGWKV HYZPD

FOEZN OKGGR BNJNV BT K

6 GPM

6TX DE 7DC NR4 131415R GR28 BT

WRKTH IJQFI UMEYU OAEIX 12498 JAVOZ STNHK WBPGC NJLXK SIMVR

70356 REBDG FAQQZ HTLFS YUMEC MAQOV DUNAL PIXWU YOREK HDBYF

JUWZT KOBWG CLFKM 93654 NZJPH CUXVT SEDGB NMVOQ BT K

7 GPM

1ZO DE 5U8 NR22 012112R GR31 BT

GQOMJ REHZT FAJIU WILXK YUMYA STLRK HIVFE 70182 BRWPZ SAYDD

HKSWD ROGGK WCFMV 41795 GAZPV NLFMQ CUBZN KIDRG YUJLK NLZST

HUTEX 30628 WEFSA RYJDB JOTYH PAKIE TOMVX DSNJZ XEMAW GOPLF

MCVNE BT K

7 GPM RECEIVING PRACTICE

SERIES 3

7 GPM

5BU DE VE2 NR9 190723R GR31 BT

BGWHC KLOOR 34072 RNJBV KOIEQ KIGRX ZYSHP DATZB HIUAV TDSWF

UMLJQ YETYF VDCQD RTBHW PACUM WRFKW 18956 MAFWX PSVNG JHSBY

HEQKO LUZTM DOBNJ VRZLK DIGAF SOLYE NUTZY JIGIE RELNW DAGDK

13862 BT K

8 GPM

DCJ2 DE COW9 NR8 212356R GR35 BT

JSIKT GFIMC VYAPZ OGDLO WEMUF KITEX 70459 VNBPH ZOGNR MUWBY

QUCOX HRSWZ BIYJL 12708 JVTSF GWSPB HOTIM FYMVC WOTSC JHDPL

FASEV WXTOM FEKEU DQNJL BYVRZ RKNQG HEIHU BANUX GDRZK 39465

TOJUC DAWYP 12549 FUQML GYZFP BT K

7 GPM RECEIVING PRACTICE

SERIES 4

8 GPM

KNO2 DE TAO3 NR10 301257R GR35 BT

JKLST HCFIM VYAZP DGOQL FWEUM XITKE 57904 HNPBV ZGNOR WBYUM

OQCXU RZSHW JILYB 20817 FVSJT WSPGB OTHIM CYVMF CWTSG LJDHP

41879 HNBZA GKIWX LOQCS BDGJW ZOTIX PDOTF KUVFE RTYLW AFTJM

QCXAU LCTWQ NJGBH VDGRS KIWXL BT K

7 GPM

KLM3 DE TOA8 NR3 280724R GR31 BT

KYWJL XIOMU 30687 SQLGB WHERS FVXIM SRVYZ JNOBG TKACI EHNBV

AKRED TNKDY PSJMD JUSRB ILAYC HZQME 93256 RWFNK VUMAE HNVJG

89714 ZABHN XWIKG LOCSQ WJGBD TIXZO FTODP KUBFE RTLWY FTJMA

XAUCQ BT K

7 GPM

5ZU DE IZO NR6 131623R GR31 BT

SKLTJ ICMFG YPZAV DLGOQ MUEWF TXIEK 05479 BHPNV GROZG WYBUM

COUXQ RZSWH YILJB 78021 VSFTJ WBPSG TMOIH MVYCF TOSCW HLPJH

SAFEV TXOMW KUEFE NLJQD VZRYB HEIQU NABXU RDGZK 54639 KNRQG

JOUTC BT K

7 GPM RECEIVING PRACTICE

SERIES 4

6 GPM

GL5 DE R3X NR1 070514R GR28 BT

ZAKJF ZWBHE OBMPR UIBLJ DUNTN

67908 RADDM XNGPM VRZFW 07328

XYZGF CJTHG HBRAB UJLFZ XITZB

QAYNG DQSEI BIAOG LRFKM TWCYV

LCMVP KOIEY QUDMS CEHTQ DRKIW

SUKNP WSOJN VEAQY BT K

5 GPM

6BX DE CV5 NR8 312345Z GR23 BT

YOBNM ULFXG ZWTEW CRQGT RFMEL

ODAEH VAFOQ 12789 CIYVK 36450

BIPZY SLJUK PFAMH BT K

YDLDA SUKRM GNCKH BJNIZ BQSIT

XZJVF IHUVD OCQVU CZIWE GREQG

7 GPM RECEIVING PRACTICE

SERIES 5

5 GPM

8WS DE X5S NR7 18183ØR GR23 BT

MOTOR AFTER HOURS UNDER LIGHT INPUT METER AUDIO POUND CORPS
SPRAY WHICH TOTAL AREAS BARED METAL STEEL ENTER CAUSE PARTS
TOUCH PAINT APPLY BT K

6 GPM

X9Z DE RL4 NR8 26Ø936R GR28 BT

SENSE HUMOR MINDS WOMEN THOSE OUGHT OFTEN NIGHT PHONE MADAM
ALONG SHALL FRONT THINK WHERE AWOKE WOULD ASKED DOING WORLD
GIRLS DRESS REELS TAKES GOING STAND SILLY SOUND BT K

7 GPM

IC6 DE J4A NR12 Ø7Ø329R GR31 BT

SWEAR SWUNG PLACE EARLY HOUSE DOORS SMELL SCARF LEAPS STOOD
FRANK BLANK SPRIG THERE ALERT EVERY NIGHT RIGHT STORY BOOKS
BEING SHIFT MIGHT ASIDE COULD ENTER TAKEN SWEET YOUNG THING
HELLO BT K

7 GPM RECEIVING PRACTICE

SERIES 5

7 GPM

7GY DE B9K NR11 131757R GR31 BT

NIECE KITTY FREAK CHAIR LUCKY CRAZY KNOWS THREE OFFER EXACT
COUNT PARTY YEARS SILLY THANK MAYBE ITALY HELPS DRINK TIGHT
LITHE WHOLE HOURS WATCH WHILE READY LYING DRAWN WRONG NEVER
AGAIN BT K

8 GPM

T5X DE 6PL NR4 190216R GR35 BT

CRAZY SPINE SMALL STOVE STAIR WOMAN FIGHT BRIEF FIRST YEARS
READY ASKED FINAL SCORE WATCH OTHER PARTY SKIRT ALLEY BREAK
FRAME ABOUT STAND MIGHT RACED WIDER FRONT STOLE PANTS EARLY
DRESS HURRY AWAIT ORDER FOUND BT K

7 GPM RECEIVING PRACTICE

SERIES 6

8 GPM

TB3 DE 1YO NR12 212223R GR35 BT
KMRGB LDFGX WITTE 26174 HUMCD NVLOJ FMVYL WRBRQ CYPTY AVFZO
QXKCG Ø3958 UJDEP ARHFL NTDMZ SBPGH SAEWQ BSJOZ XIUKN RVIKX
23154 RMOGT VEFWZ DGKGW CMYLJ QUMFC VLATO BEYPM ICXMH YEDGK
FTXUJ GBMRK DXGDL LOVNI MYLFV BT K

7 GPM

F3S DE V4M NR2 Ø21454R GR31 BT
PHASP SROBO DZLBI WZNNS 9786Ø JUZAK WOQAX PDACH BIZLJ DNSJN
IMEUK HSPJB UKSBJ EGXRT CLYYN TVORW 4Ø369 VZMAU TQCPF 28147
YXIVH WGVEQ LFRDG IZWMK PUCBJ OHMFR IEQVN Ø6451 TQOAB YXFDC
IVKGH BT K

7 GPM

PH7 DE 19C NR7 1121Ø7R GR31 BT
29783 LYXGK EYGCW LHPMR JDNMU ATIQS LZFER BWUSP ZXBOD SKNAJ
MEBRP UESTL MJNDY HCWXY GLRID KVGFM WRZOC VFOTV VOIUA XCLHK
68Ø24 57913 GHECT AFBSZ NIZKJ OQBJO XNSWB QDFUP QSEUA LPAON
TCQWZ BT K

7 GPM RECEIVING PRACTICE

SERIES 6

6 GPM

BA1 DE 4KZ NR9 090859R GR28 BT
ICDHG ZADFJ RPHEO MULMK WTRBZ WGICQ HDGUC 96384 YRFXL 75012
VQEMK FOATV VNYPL CIKYX SEDGH OPTSQ XZABW NSJBI UAZNK MRFXL
34096 KVHGY DQGIC TWAWC LUMZP OPERJ 21857 TVFGE BT K

5 GPM

8WS DE X5S NR4 301926R GR23 BT
DFJLU MPHRS AOPBT ZBNWX NJUIS URFKM 34896 VKMDC IWGGH XLYRF
42107 VWZQT POACE OBEQT VEOYL URPZX KUJDZ FKIDA YXGJN MAPCH
SQWJL SBITB SNZHN BT K

10 GPM RECEIVING PRACTICE

SERIES 1

8 GPM

SR2 DE WGH NR12 232102R GR35 BT
YZVRP JGDBN OTQHF IKAEN PBZEO MYUGK 58670 ZJTMV FKXYB ORHPA
DWVYS 04872 JLAPH NQTZW ECMFU JOQME YXFZO VRPGD BNQHI KUNBZ
61953 GDERS ULWIT BJOZC IXAZP NTICU HVDEK OKXMU EFJWH KKVGS
DWNPB 79248 NKSGJ DBKWH LTRMA BT K

9 GPM

NZ4 DE 7FG NR4 212157R GR39 BT
RTVYE UYMLK IFOSG AXRFY ZSJNT GLQZC FMEXM NVDEK JOYUA BJORW
EIVCA 53061 DYPNV KWHBA SGORD ZPTBQ GFRSH LTHKX LIWQU IMFUV
29403 BQWIM XAEUQ JHTSB FJPZA NYWGD HZBLO TNREG TFWCL KQODS
NKVGS IREUF MKLXO VAMYI RZHYU 58716 GZJNQ LWUAC GRNVH BT K

10 GPM

8HS DE ZXS NR8 161114R GR32 BT
KQZHF MXAZR DFKEU PVAFS TJLQY 98013 DJYLW SBNPO DGSBE RTOWK
CTEIH EMIVO 54726 MYIBZ GBSDP VJNYH LDWCF IMXAQ TFAEU OJKRG
VSKBW GPRNZ BAOJQ FDREO TNHTL IWEXK MYUQV ILMUC YHVGD 72348
BERSW 56923 BT K

10 GPM RECEIVING PRACTICE

SERIES 1

10 GPM

P2B DE Q9H NR11 241028R GR42 BT
HONTC ITEFK UAYCX MLIHU MUGOQ BSMYW NIEUL ISFVH YPBHA 04817
DQZEU XAVJT 21947 KTCVZ RLCUN PAEKW XQYIT JLNOR WHFSG DFKMB
ZDGRJ OMDKQ ISQAN RQBSM RTCPS 63580 MGLRU PLEBK YJNTV GHUVT
UOZED 60593 WYJFZ IHABK MWDZV CEFYN WOIHA FGEJX 84172 YTZFL
DWVZJ LAHGO BT K

11 GPM

MAC4 DE JWE9 NR6 302158R GR46 BT
JBHXW GHCNE 34962 GKCYV DFIEP RQLEA SBKUB SMNFM OIROM VKYKU
50718 RSPQZ TUMWI TADJX YIZTQ NBHOA DOMZQ CNAIM GQUWT EPDWY
JSVLU BFJKR XVGHE LTYSO FVRXU 04734 98126 ZARBI SLWPN JKOCB
EKFMN JUOCE XYZUS BKWVZ RQERP LSHXW PTUBS OLCYV JLHVK QNEGA
RZTMY 50418 GOKFD FAIWJ SIBKD 29673 BT K

10 GPM RECEIVING PRACTICE

SERIES 2

8 GPM

R2S DE G5M NR6 041317R GR35 BT

VPRZY DNBGJ TFHOQ KINEA BOEZP YKGUM 60785 TMJZV KBXYF HAORP

WYSVD 27804 LHPAJ QWTNZ CUMFE QEOMJ XOZFY PDRVD NIHBQ BZNUK

93615 REGGS LITWU OCZBJ XPZAI TUCIN VEKHD XUMKO FWHJE VSGKK

WPBND 94387 KJGSN BHDWK RAMLT BT K

9 GPM

Z4N DE FG7 NR5 161827R GR39 BT

VEYTR UKLMU FGSOI FRYZA STNJZ LCQGZ MMXEF VKDEN YAUOJ ROJWB

VACIE 31605 DVNPY WABHK GDROS TQPZB FHSRG XKHTL WUQIL FVUIM

40392 QMIWB AUQEX HBSTJ ZAFJP YDGWN ZOLBH NGERT FLWCT QSDOK

KVSGN RFEUI KOXLM MIYAV ZUYHR 61785 ZNQJG WCAUL RHVNG BT K

10 GPM

H8S DE 5ZU NR10 120425R GR42 BT

ZFQKH XRZAM FUEKD VSFAP LYJQT 10839 WYLJD BOPSN SEGGD OKTWR

THEIC MOVIE 26475 BZIMY SPBDG NHYJV DFLCW MAQXI FUAET JRKGO

SBKWV PZNRG OQABJ DOREF HLTNN WKEXI YVUQM LCUMI GVDHY 24378

NFZSJ VSZYM BTLPQ HEPAI FKRAJ JQXWO 19506 WNDBY GRLVK JQODZ

RWBES 25963 BT K

10 GPM RECEIVING PRACTICE

SERIES 2

10 GPM

B2P DE H9Q NR3 250947R GR42 BT
NCTHO TKEFI YXCUA LHIMU GUMQO SWMYB LEIUN SHFIV PABHY 17804
ZUQED AJVTX 42197 VTCZK CNLUR AWKEP QTIYX LRONJ HSFOW FBKDB
GJRDZ OMKQD SANIQ RMMSQ TSPCR 30856 GULRM LKBEP JTNVY HUTGV
ZODEU 36095 JYFZW HKABI WVZDM FNYEC HAWIO GXJEF 21784 LTZFY
VJWDZ HOGAL BT K

11 GPM

IN8 DE S43 NR17 081812R GR46 BT
XWHJB NECGH 23649 KVYCG FPIED LAERQ BBUKS MNFMS RMOOI KKUYV
18057 PZQRS WIMUT DXJAT TIYZQ BOHAN MQZOD AMNIC QTWUG PYDWE
LUVSJ KFJRB VEHGX SYDTL VUXRF 35704 16298 RIABZ LNWPS KHOCJ
KMFEN COEIJ SXYUZ WZVBK QPRER SXHWL BUTSP CVLOC HKVLJ NAGEQ
TYMZH 14508 DOGKF WIFAJ BDISK 63297 BT K

10 GPM RECEIVING PRACTICE

SERIES 3

8 GPM

R2S DE G5M NR6 041317R GR35 BT
 VPRZY DNBGJ TFHOQ NAKEI BPZOE GYMUK 86750 MVZTJ BFXYK OHARP
 SDVYW 70420 HJAPL WZNTQ MEFUC MEJOQ FOXYZ DRPVD HIBNQ NBUKZ
 19536 RSERG TULIW DJBOZ PIZAX CITUN DEHVK MOXUK JEFHW KVGKS
 NWBDP 37489 SJNGK WHDKB MATLR BT K

9 GPM

Z4N DE FG7 NR5 161827R GR39 BT
 VEYTR UKLMU FGSOI FAYRZ JSTZN LZGQC XEMMF KEDNV YJAYO JOBRW
 ACIVE 15036 PDYNV BKHAW DORGS QBZPT HGRFS KLTHX ULIQW MUFIV
 94023 MIBWQ XAQUE TBESHJ FAJZP WDNGY BOLHZ RENG T LTCWF SODKQ
 GKNSV FIREU OLMXK YAIVM HUZRY 81567 NGQJZ CAWUL HGNVR BT K

10 GPM

H8S DE 5ZU NR10 120425R GR42 BT
 ZFQKH XRZAM FUEKD SAPVF YTJLQ 30918 KYDLW SOBPN GEDGS KRWOT
 CETIH VEOIM 72456 NIBYZ BDGPS HVJYN DWLCF MXIAQ TEFUA KORGJ
 WBKSV ZGRPN QOJBA REODF LNTHT KIXEW MVYUQ CILMU HVDGY 38274
 SNJZF YSMVZ PBQLT AHPEI RFGAK QOXWJ 96015 NYDBW GKRVL DJOZQ
 RWBES 25963 BT K

10 GPM RECEIVING PRACTICE

SERIES 3

10 GPM

B2P DE H9Q NR3 250947R GR42 BT
NCTHO TKEFI YXCUA HIUML MOGQU WBMSY NELUI HIFSV BAHYP 01847
ZEDUQ TAJVX 94172 ZVCTK NRLUC WPKEA TXYIQ ROJNL SGFHS BBDKF
OGRZJ MDKOQ NQAIS MSMRQ SRPCT 36538 LRGUM KPBEL VJNYT GUVHT
DUEOZ 53690 YJWZF KIHAB VDMZW NCFEY WOAIH XFJEG 14827 FLYZT
VJWDZ HOGAL BT K

11 GPM

1N8 DE S43 NR17 081812R GR46 BT
XWHJB NECGH 23649 VGCYK PEDIF RELAQ BKUSB NSMFM OROMI KVYUK
51807 RPZSQ TIWUM JTXDA ZITQY HONAB DMOZQ MINCA WGUTQ YEWDP
SULVJ RKJBF GEXHV TYDLS RUFXV 45037 21869 IZBAR NSWPL HJCOK
EMNFK UOCJE ZSUYX BWVZK PRERQ SLHSX TUPSB VOCCL KJHLV GAQEN
ZTMHY 48015 GFDOK FWAJI DKSIB 63297 BT K

10 GPM RECEIVING PRACTICE

SERIES 4

11 GPM

5ZU DE JW9 NR2 291827R GR46 BT
 RMNIF TAGMB NZMYV 24659 31708 DOWUS TEZKX GQHVA RLUAT LJSCX
 YPHDH IOKRE ZJFNW QLTFW GIPGJ DIBVR KNEOS BFMAY UMQWZ 51830
 BDICO IANDQ EVRBK PDWVG SFXVP QMBFS JYKNR JLTIIY JNLAY CVHGZ
 EROWH SKTLX AUEMO QUHFT UDKZF 29476 BSWIZ YPNHC BDTLY GRHMW
 XVJOF 74301 HVFIO UMJTC VYSGQ UTEAD BT K

10 GPM

L12 DE JW7 NR14 151201R GR42 BT
 FRNIM GBMAT MVYZN 64259 18073 SWUOD ZXKET VQHAG LAUTR JXCSL
 HDPYH KIREO JWFNZ LFTWQ PGJIG BRVID NOSEK MYAFB MZWQU 10385
 DOCIB NQDAI VBKRE DMWGP FPVSK BSFMQ KRNYJ LIYTJ LAYJN VGHZC
 HOREW SXLTS UMOEA FHUTQ UFDZK 46729 SIWBZ PHNCY DLTYB HWRMG
 FVJOF 01374 BT K

10 GPM

LO9 DE P3D NR7 121050R GR42 BT
 KNSBX BEHMP YCXGI 21570 VMFRK LYWGX DHKIS JUMRY PORTW NUZIS
 LROJA VETQF 69438 RMHBK ORPLV HKIOD DZKAJ LFSNJ BUNIC MUPTJ
 WBQOZ SPUYA EGXCS 87564 KMLXB FYGHR CIQOD WCTWB VZFVT 90321
 NAYEK VOBEN BTZCQ DQYXK 06324 LAPXY NFNLK UIJVU MWURJ GHKVM
 YLXRF CWGTH BT K

10 GPM RECEIVING PRACTICE

SERIES 4

9 GPM

T5X DE 6PL NR5 310956R GR39 BT
DHSEO 75198 QPRUT WASJZ XBMUP COAFY EDFBG ARMPL JNIBK NAIZW
XJUPT OQBSB HESHK GBIXE YCONJ 32789 MUAPY LVZFO 15640 TVTCE
GWIQW QRCDH GKMYV FSXRL JSBXN ASPAP IDIHO OMNYU DICGW YLJKG
XGECX QOBWS LTJFZ IDTKU UHMVR LAYJP TWRTZ VFECQ FRQNM BT K

8 GPM

1ZR DE YX3 NR3 071615R GR35 BT
JERKD ARTSE KEYSA RPYFL GYUXD NJBOZ AOVQC HWMRD ZNSJD LTBIB
HKHOQ CGLYI 89543 KMVTC 72896 QUWIV XGLFN PZQXH HRALS MOXGR
SWQKL CHGWG YXLIQ 97865 15275 UMFKV GDTZR NMYVO YBGCJ MSKDD
OUBPS VOFWQ XFJBL NUKJZ NEDPZ BT K

10 GPM RECEIVING PRACTICE

SERIES 5

8 GPM

F5L DE DC6 NR4 090807R GR35 BT
STATE THREW SOUTH SHORT LIVED PRIME UNITE BRING WHITE HOUSE
RIGHT ALONG COULD POWER RIVAL LARGE FORCE OTHER GOING UNDER
HOPES STORM COAST FLOOD DEATH MILES GUARD WAVES TAKEN MINOR
NORTH HEAVY THEIR HOMES WATER BT K

9 GPM

7ZK DE V40 NR8 131645R GR39 BT
THERE SWING BEACH THREE WHILE ETHEL ABOUT POINT FORCE DRAMA
MIDST WINDS ROUTE HOURS THROW REBEL AFTER MARCH UNITY FIRED
NIGHT BUDGE CLOSE CORPS PLANS AMONG PLANE PLAIN LOYAL TROOP
UNDER JOINT GATES STAFF YEARS WROTE WORKS QUOTE SMITH BT K

10 GPM

KW9 DE 3BA NR3 192325R GR42 BT
VOTED OFFER SENSE CENTS BEING USUAL EVENT WORSE HORSE GROUP
GUARD CHECK PRIDE AIDES FALLS QUINT BLOWS FIRST WARTS MAGIC
MEDIC STORE EVERY TODAY BIRTH PARTY UNITE STATE JAMES WORLD
WHICH TOWNS SHARE LIVED QUIET LEAST SUNNY READY DEATH OTHER
UNTIL WOUND BT K

10 GPM RECEIVING PRACTICE

SERIES 5

10 GPM

R8T DE E12 NR1 311837R GR42 BT
TRUCK ALIKE ROOST GLASS STEAD PRESS FIGHT RUMOR WEEKS STUDY
GREEK ROOMS PAPER CLERK WHOLE LIKES SHORT NEVER PLANS STUCK
MILES STEPS BROWN MONEY LEASE KNOWN BLOWN RADIO FLOAT RAISE
STOCK YOUNG DROVE SEVEN EIGHT POWER LOUIS SCORE LEWIS ERROR
FLOOD GAMES BT K

11 GPM

OX6 DE 9LB NR9 101957R GR46 BT
HOMER FIFTH WATCH RIVER MILES BELOW FOUND SMALL BRING SHIRT
MIGHT METAL WHEEL MEDAL BLOCK QUART SIXTH THIRD TENTH BASIC
BASES NINTH WHITE GREEN COLOR TIGER BEARS START PINCH MOVED
FORCE PITCH DELTA DRUMS STICK THING MOTOR CARRY SARGE SHOES
SMOKE PEPSI RIGHT WRITE FIELD SHORT BT K

10 GPM RECEIVING PRACTICE

SERIES 6

11 GPM

LO9 DE P3D NR7 121050R GR46 BT
KNSBX BEHMP YCXGI 70215 MFRKV XYWGL DIKHS MYURJ TBWVO ZUZJN
JLARO TVEFQ 60348 VLOPR EMBRH KIODH ZKADJ SFJLN IXUBN UPJMT
BQOWZ PYSAU EXCGS 57846 MXKLV FGHYR DQIXQ WTCWG VFZTV 30192
MXEYA NBOEV BXQTZ YDQIK 34602 SPLAB FLKNN IVJUZ UWJMR VKMHF
YLXRF CWGTH BXS NK HEMPB XIGCY FKRMV BT K

10 GPM

T5X DE 6PL NR5 310956R GR42 BT
HSEOD QPRUT 75198 SJWAZ XMUBP CFAYO DFBGE PRAML BINKJ IWZNA
TUPJX BQESO HEKHS EBXGI JYONC 39728 YPUMA LZOFV 10546 TVCTE
GWQIW CHDQR KYVMG XSRLF JSBXN PPASA DIEHO UNYOM CDIWG YKLG
CXEGX BQOWS FZJLT UIKZD RUVMH YJPLA ZTRWT FVQEC RFNQM 37912
50486 BVKMP BT K

10 GPM

1ZR DE YX3 NR3 071615R GR42 BT
JOBNZ CQVAO DWMRH SZDNJ ITBLB JERKF ARTSE KEYSA YUFPP XUYGD
IQVWU XNGLF PQHXZ LCRAH TAMQZ OHKQH GCYLI 40135 TVKMC 96827
UFVMK DXTGR VYOMN YBGCJ MSPDK RISAT WHCGW XLYIQ 31509 46782
SUBPO VWFOQ FJBXL UZNKJ ZDPNE 13405 JLFOX GDSOH ITZNX FJDZS
LURPM KNSBA BT K

10 GPM RECEIVING PRACTICE

SERIES 6

9 GPM

B6D DE 5HR NR9 222129R GR39 BT

TVKVE CYQAP YVKIN WGBES 67829

JIUNZ WOZBQ XCEGS LHPBU CTWHQ

DLICY MVKXF YRGLP 24706 ZDFRA

RDBOH UPRPA FJDXL RKSBN ZEHAM

HEBMO RWTZU CQWGI DGHYC LMXFR

FNVOO RJUMW IKOYH MSAED TVGEQ

35198 TBXPJ XZECG QBOSW IZNJU

YJNIS UMLVY PROFA 79364 BT K

8 GPM

A3J DE KL7 NR12 080148R GR35 BT

ROJEA YXRMK UZYZF ABSWA EYUZW

GHIHX PMODQ 50712 CHDVG TPJXF

PRAOB SDSQM PBEHO IEKGH CXJYN

GYXLJ VTOPF 94368 UTZWR MLVYA

KILSL VMSDK GDICH YLXRF 15208

MVBLE TQGCW OTFVO 34986 RLCNP

KUHNH ZBXLI JNIAN FUSJD WUZKT

BT K

13 GPM RECEIVING PRACTICE

SERIES 1

11 GPM

D3H DE 5AB NR1 192300R GR46 BT
GJKDB NLOTG FIMVX AZSPB 32579 OLMEZ HPDGR SWHIM QGFLO YUCQJ
XEBRS JAWVB NYRVH ZWQKT QAUIE UITFN BGKNO ZHTIU YZVRJ 01486
NTHIM CURPB AGRKI JOMYU DJLOS RTWCF MVXAY WSPGD BOQLF AENVZ
DFEST 35918 27046 WXLQK HZGVZ AJQDE ROWTI WFIKO QCYUA YDWBS
LPDGS BRNSK HLCHJ FILMV 73168 YEMAU BT K

12 GPM

7HJ DE Q6B NR13 200730R GR50 BT
BJKNO TZEMU RNPVF GKTEX YNWJS ZPOGE NZQTL EFXKU AMEAU BHZDG
FVKRA 40952 DSBRO WTIHF BVLNJ 39821 FDRGQ TSKHW CIJOL QCYXY
UMIVD BWVNJ GTOKC FXUMY HNJSP OAGDE ZQTL HWIKA 57046 YZGPF
BKLRZ DFTIL UVOJH RBFSQ NWSMQ UYECX MIRDY HCSBQ ZSWNK ULFTO
XALJB 07428 39165 BZHJO IWJXO QCYEU MKETZ GFDAP VRLNS DEGRW
BT K

13 GPM RECEIVING PRACTICE

SERIES 1

13 GPM

A4MO DE PZ9K NR14 071453R GR52 BT

GVRNT QHKLF IUVMY AMPSQ ZTLRS OWHIF RBEND 85301 29476 UAMVO

LXFEI MUKYC OPZVW BDJHN YGPJA BZVLR KNQDS TGFKC MWTLJ GQUAX

29413 EYHWN GPSLN DQREZ 65807 NQGBD TWHIK UAEYM WJUAZ BVJUQ

OXVLF HSGOJ FRBGP HZYDS KROTC IFEMO CLITM YXVYN HKFZW UYALE

KRGNB DECOY UVXFT SZGNR 14705 OPLKI UCAOQ DBTGH BJLKW 98263

IMEXJ IRASV BT K

13 GPM

WH8 DE OXZ NR4 230605R GR52 BT

ZWVDS THFMP 34962 QMBGK DOHIA PROAD HWNSB HTFLU MYEAX JILCS

RGFQN ZDVJP UYCXU MKIFW 15708 OQMUE 03654 ZRBSG WQKNE TJZVY

LTJZB TMUXO CWIFZ PMBHD GCUYA HOROL RVZWB VGQDS YSNKP JFDAN

GRETK 18927 HLITW NEFJI XKULV AQMYE KGDQM UVBZA 70648 PBNCH

FMYAV ILTRG DTNLJ VOQGF DRSKZ HWPJN SBETR SOZWK HTLIE WFJMU

12539 ECYXQ BT K

13 GPM RECEIVING PRACTICE

SERIES 1

14 GPM

PY3 DE GFD8 NR9 312219R GR55 BT
OKUIX DWVDN WIFUV ACEUQ ITSQR HBPSJ ARSEO TZKLV XLMYA IECHQ
ONPZL GKVJZ 63195 RBGFB DGNVH FJKMO XYMUT 74028 JTMCU HPWNA
GRNKH BRPCJ XAYUK OLITF 25801 67394 GNZFS EORZH DJKLO QTEVX
AYVSG BDKSL FMKIE UYUWI DZVBN TPKWQ AULJI ECRBG OLVYD BZQGE
KTLIW 15370 RDFKM QCIXY EUMFT YAOMU XFHHS OZNSJ DANRS 69482
VJWGP ZHBRD PVAGS 28071 CIVAM BT K

13 GPM RECEIVING PRACTICE

SERIES 2

11 GPM

H7D DE A2D NR1 182221R GR46 BT
KDJGB LTOCN MIVXF ZSPDA 57932 OLZEM DGRPH HWSIM FLOGQ CQJUY
BRSEX WJAVB YRHVN KTQZW AUIEQ TFNIU BKONG ZHTIU VRZYJ Ø1864
MIHTN HPBCU GRKIA OMYUJ LOJDS WCFTR VXYHA PSWGD QBLFO NVZEA
ESIFD 35981 7Ø642 XLQKW HZVZG JQAED OWTIR KIOWF YUACQ YDBSW
PKGSL BRNSK CHJLJ LMVIF 73618 EYAUM BT K

12 GPM

JH7 DE Q18 NR12 2ØØ73ØR GR5Ø BT
KNOJB TZEMU RVFPN KGTEX YWJSN POGZE NZQTL FXUKE MEAUA HBDGZ
KRAVP 9Ø542 DBROS WIHTF BVLNJ 39218 RFDQG SKWHT CIOLJ QYXYC
MIVDU VNJWB TOKCG XYUMF JSPNH GDEAO ZQTL E WIKAH 5764Ø VPGZY
ZRLBK TIFDL UOJHV FSQRB WNSMQ UEYCX IRMDY SBCQH SNKWZ FTOUL
XAIBJ Ø7482 56139 HJZBO JXOWI QCYEU KETZM FDAPG VRLNS GRWED
BT K

13 GPM RECEIVING PRACTICE

SERIES 2

13 GPM

M49A DE P9ZK NR14 062150R GR52 BT
RGVTN KHFLQ MIUVY PSQAM STZLR WOHFI 80135 ERBND 47692 UMVOA
RTGVN QKHLF YMTVI BJHND PYGJA RZVLB DKNQS FKCTG MTJIW XUGAQ
49312 HEYNW PLGSN ZERQD 57860 BGNQD HTKIW YUAEM UHAWZ JUQBV
XVFOL GJHSO FRGPB ZYHSD KCTOR MIFE0 TCLIM YXYVN HWKZF EUYLA
BNGRK COYDE FUVXT SZNRG 75140 OKILP UCOQA GBHTD WBJLK 63928
JXMEI IRSAV BT K

13 GPM

1Z02 DE 1Z03 NR11 021549R GR52 BT
DSWVZ HPMFT 42369 GBMKQ IOAHD RDAOP WSNBH TULFH YAXEM LSCIJ
GNQFR JDVZP XVYCU KWFIM 18507 MEUQO 46530 BGSrz KENQW JYVZT
ZTLJB UOXMT WZFIC HMBDP CAYUG OLROH VBZWR GSQDV KPNYS FANDJ
KETRG 97281 LWTIH JIEFN KLUVX QEMYA GQMDK AZUBV 68407 BHNCp
MVAYF LGTRI JNTLD GOFVQ RKSZD NWPBJ BERTS WOKSZ TIHLE JUMWF
29351 CQYXE BT K

13 GPM RECEIVING PRACTICE

SERIES 2

14 GPM

VPY3 DE GFGI NR13 270612R GR55 BT

YXIKO WNDDV VUFWI CQUEA TRQSI BJSPH REOSA ZLWKT SAYMX CQEIH

PLZON VJZKG YOQET BBGFR GHYND JOMKF MYETX 48207 MUTCJ PAWNH

NHKRG RJCPB KYAXU LIFTO 51082 FZNSG 34796 REOZH KLOJD VEXTQ

SAYVG DLSKB MIKEF YIWUU ABVZD KWPQT UIJLA CBGRE LYDVO ZEGQO

TIWLK 53071 DKMFR CXYIQ FTUME OUMAY FHSXZ ZSJNO NSARD 42896

JPGWV HRDBZ VGASP 07182 VMAIC BT K

13 GPM RECEIVING PRACTICE

SERIES 3

11 GPM

D3H DE 5AB NR1 192300R GR46 BT
GJKDB NLOT C FIMVX SAPDZ 29735 MZLOE DRGHP WIMHS FOLGQ JUYQC
BEXSR AWVJB YRHVN ZQWTK QIEAQ UTNIF GNKOB HTUZI RJVYZ 68041
THNIM UPHCB GTAIC OMYUJ JDSLO TWRFC XAVMY SWGDP OQFBL NVZAE
DEFTS 98153 20674 XLQKW ZVZGH DQEAJ TIRWO FKQIW YCQAU WYSBD
GLPSD RSKBN JHLCH FILMV 73165 YEMAU BT K

12 GPM

7HJ DE Q6B NR13 200739R GR50 BT
BJKNO TZEMU RNPVF KEXTC NWSJY GOPEZ NTLZQ FUKXE NUEAA DZNBG
RAPKV 90524 SORBD TFHIW NJLBV 23819 DGQRF SWHKT JLOIC XYQC
MDVIU WJNVB TCKOG FYXUM NSPJH GEDAO TELZQ WIKAH 06574 ZGVPY
RKLZB FLITD JHOUV SFBRQ MNWSQ CEXYU RIDMY CQSBN NSWKZ LOTFU
JIBAX 28470 63195 HOJBZ XOIWJ CUYEQ TZKEM DPAFG NLSRV GWRED
BT K

13 GPM RECEIVING PRACTICE

SERIES 3

13 GPM

A4MO DE PZ9K NR14 Ø71453R GR52 BT
GVRNT QHKLF IUVMY PQSAM TRLSZ FIOWH NEDBR Ø5318 46792 VOAMU
XEIFL YUMKC POVZW DHNJB GAJFY LVZBR NDQSK CTFKG WITJM XGUAQ
12493 WEHNY LPGSN REDQZ Ø7865 GDBQN HITWK YEUAM JAZUW JUBVQ
LOXVF SOGJH RPGBF SDYSH ROTCK MOFEI LITMC SNVYY KWFZH YAUEL
NKGBR CODEY XTFUV RGZNS Ø5714 POLKI COQUA BGTHD JLWKB 36289
IMEXJ IRASV BT K

13 GPM

WH8 DE OXZ NR4 23Ø6Ø5R GR52 BT
ZWVDS THFMP 34962 MGKBQ HIOAD RADPO WSBNH FULHT EXYMA LJSCI
FQGR VZDPJ CUXYV IKWMF 51Ø87 UOMQE 63Ø54 SZBGR NQWEK YZTJV
ZLTJB OTXMU IWCZF BDMPH YCGUA ROHOL WVRZB GSDQV KYSNP DNAFJ
TRGEK 91728 IHLTW INFJE UVXKL MAEQY DMKQG VZBAU 4Ø867 CPHBN
YVMAF GIRLT LDNTJ QFGVO RZKSD HJPWN ESBTR WOSZK IHLET MWFJU
12539 ECYXQ BT K

13 GPM RECEIVING PRACTICE

SERIES 3

14 GPM

PY3 DE GFD8 NR9 312219R GR55 BT

OKUIX DWVDN WPFUV UAECQ QIRST PJSBH EASRO WZLTK LYAMX ECQHI

ZOPNL JGKVZ 39165 FRBGB YNDHG MJFKO YUXTM 40827 TUCMJ NHWPA

NHGKR PRJCB AUKYX IOTLF 50128 37496 NFGSZ OZHRE JLKOD EQVXT

VGSAY KBSDL IFEMK YIUWU BNVZD KWPQT ILJUA RECGB DOYVL QEZGB

ITLWK 37150 KRDFM CXIQY METUF AMUOY HSHXF NLJZD RANDE 98264

JGPWV ZHBRD PVAGS 28071 CIVAM BT K

13 GPM RECEIVING PRACTICE

SERIES 4

14 GPM

TI2 DE G7H NR3 -Y- 080937R GR55 BT

YLXVK MFRKN NSDAZ LJUFB XULJZ TWAPR SOBQP SMHDH KXEGI YBCIO
NVMYJ ALRUP ZWTFO 96348 TQCEV WICQG 10275 HLGVD MRKFV YGCXX
BAUHJ CGTVQ WHICD RAPUT SFDIB JANUN WKJCX LOZBQ PDMSS KIEHE
24750 ROBFZ NOWYM VKETQ MLYFG 39168 BPDZL HKQIO NLRAM 27406
CHYIW LQDGX CGWET JYCOU HMGSE DXSAP JLUNB XSMTF PUZYA RQJEK
81593 VFTZR ATFKL BCDIX ZLOUJ BT K

13 GPM

D5B DE 8CW NR9 -Z- 271938R GR52 BT

KFPVM VQOIW CEOFQ WGBIC LHXGY FRKVM 54072 69318 ZVRTW PULAT
OMJBE IVYKN YECXG DSOQM SHPHQ AWTUB PNZLR UNSIB XJDZF YAKPH
UZCOA TFEQB EDKPB RXGPW SDZNJ IKUBN LTAJU AZOBQ 54128 CFLKX
YVMGR DHWIQ GCWTY EOVMA MSGXS 30976 INJRH LASOQ WVFOT MIFKC
LUBSX 80624 WQGHG OETDC CEYGX EBHMP ZXWBT SKDAF ZINUJ HRNPJ
RZUJK VLYNI BT K

13 GPM RECEIVING PRACTICE

SERIES 4

13 GPM

2BQ DE 09R NR13 -P- 031323R GR52 BT
 PDAYM 95317 QVLFR QKABU MJUNV QGECW DTICZ VKRWM HVRXA SDHMH
 YOIEC PYLXE ZFDBX INSNJ ZBUKA ROPSP TLWGJ QFYGL 75012 86349
 AIOQT OZNOL GEHKX SCYPQ USNJK 79614 FLYXR VCHGK TWCGD TWEVR
 BZWOI MVUFJ EIYBH DPASM BDXLF ZQNAM 29358 36457 MVOPJ EOXCS
 JRIWX MLKFY VCHGD QEWIG BTWCT NRAFU YOIQY KEBJL HMGDS RQPAH
 APHQR BTUPL BT K

12 GPM

01K DE 3WB NR8 -M- 302146R GR50 BT
 SBZXJ NFAKU ZNDCK 19083 LXHRT VRCQA XIYBK JONMC EGQSH MDEHS
 57230 GMDVY WQFIG FWVOT PLUZY PAROU JTZXL IWNPB BJASF UKNDZ
 17948 WQTEG AKNZD INSBF UXJLZ BJWTU ARSPQ ODPSM KBEHG XCIEO
 NYMJV RPULY OWFAZ TVCEQ CHDIG VYKXL 20517 49368 FRMHX MGYLK
 VHRFD WGCIQ CZETV RUWQO JNMAV YCLPO YXIBE EMKGH PRSDQ 52710
 BT K

13 GPM RECEIVING PRACTICE

SERIES 4

11 GPM

9SD DE C4P NR2 -0- 081317R GR46 BT
XZIBF DAZKN 36489 TNHSJ ZAUFD NJUKS BIFNJ LTZXW RBP UA SQPOM
HESDK EIHGB JYXON YMVL C 98463 URAPO VTWZF QTECG 25071 QCIWD
GKVHY FXLMR AUKZN NFDSJ ZIXJB WPTLB ASRUP QDSOM KBEHG OXIEH
YNCYJ 63894 ULVAM FRZOP TCEWV QWGTI 72501 DCHGQ XKLYV FRLXM
YMRGG HCVKD 51720 CWGQI WVETQ FROZA BT K

13 GPM RECEIVING PRACTICE

SERIES 5

11 GPM

CD5 DE R1L NR3 -R- 232136R GR46 BT

MAJOR DOING GOALS TOUCH LIONS POINT GOING BUILT DRIVE THREW

AGAIN GAMMA DRIFT LEAVE QUEST PIPED ROUTE NIGHT STRIP FORCE

SQUAD STACK GRASS DRUGS NEVER WEIGH SPEAK FLOOR FLAIR BOBBY

HANDY RULES RANKS ARMED VERBS FINAL FORMS EQUAL LISTS URBAN

TABLE REACH ARISE ENTRY GIVEN USUAL BT K

12 GPM

X60 DE ØBY NR7 -0- 17Ø929R GR5Ø BT

SLAIN SAITH GLUEY STAID GRAND GOOSE WILLY PRINT CHAIR SPOON

KNIFE SILLY ADDED GLASS MOLAR BRAIN WATCH WRIST PANTS SOCKS

BLACK ALARM BOGIE CHOCK BEBOP BOOBY BRASS CYCLE BRIEF VOWEL

SHALL ICILY MERCY FOGGY WINDY BRIDE GROOM MARRY NEVER WOFUL

TRULY DRYLY SHILY GAYER GAINS DAILY NOUNS GLAND GREEK OCEAN

BT K

13 GPM RECEIVING PRACTICE

SERIES 5

13 GPM

9PU DE P9K NR4 -Z- Ø12348R GR52 BT

BILLY TOOTH HEART SUCKS NOTES WHITE BAKED HEARD SIGHT ADMIT
STAFF DANCE CHAOS LABOR EATEN VOTED ALERT CARRY CLOCK DRONE
GERMS ARMOR AUDIO LIGHT LASER LORAN WHEEL GRIPE NISEI NYLON
TRACK HEDGE IDEAL MESON PILOT PURGE SNAFU SCOPE REEVE RACON
ROTOR VIDEO TOTAL ABASH TOKEN SONIC ABHOR ABEAM DAILY DAIRY
LOVER MATCH BT K

13 GPM

02D DE WX3 NR9 -M- 3Ø1846R GR52 BT

USHER LIKEN FLUID POOCH CLASS PIANO MUSIC MOUNT TEXAS UNCLE
TUBER JEWEL HELLO LURID NAKED ORBIT PERIL SINEW ALLOY SWIPE
YUCCA JOULE ROBOT RAZER SONAR ABBEY ADDER DAISY DAVIT CYNIC
CURSE LUNGE LUCID MATIN SLATE URBAN FLOSS SHOVE URINE IMAGE
HONEY SWEET FORTY DOILY CHANT BALKY POUCH SHRUB PRUDE TERSE
PENNY PENCE BT K

13 GPM RECEIVING PRACTICE

SERIES 5

14 GPM

GJ7 DE 8RM NR11 -P- 091123R GR55 BT
FOLIO CHIEF CROSS CHINA EXTRA POWER ORDER NAVAL TIGER RAVEN
SCREW HERON LUNAR NUDGE ODIUM JETTY OPTIC BOOZE KODAK DOUGH
UNDUE SUMAC PRISM PRIVY FAULT FLIER COBRA POSSE KNAVE LABEL
DIPSY HYMEN DONOR SPECK UPSET CANAL SHALL DINGY BRICK ACTOR
TIMID OASIS LOATH TAUNT NERVE TALLY REACH KNOLL ETHER PETRO
MANGE WITCH WHISK ZEBRA DOGMA BT K

13 GPM RECEIVING PRACTICE

SERIES 6

14 GPM

1EZ DE Q4B NR5 -Y- 130255R GR55 BT
ZOFRU MASPV JNYOC YXBKI EHGED HSPMS AROQB ULWTP JBZXF NIASD
JULNZ KJAU A ZFSDN JZXIB ARWTL PSBOR PSQDM BHGKE IEOXH NMOCY
LVJAU 90572 ZROPF VCWET 81346 TGQWQ CFIVK GYDHM XRLFL MGXRY
14802 HVIKC GWDQC TEFQV WRTOZ PNULM JVAOY 95736 YICXB EKGSH
DPHEM PRUAS BLQTO JXWZF BSSIN NJAKU KJSZN ANUDI FZJBX WKTIU
ZOTPO QSMRD FITLC MTLWA CHFNM BT K

13 GPM

T12 DE H7H NR3 -Y- 080937R GR52 BT
YLVK MFRKN NSDAZ BIUJF ZJXLU RTPWA PSQOB MSHHD EKIXG IYBOC
JNMYV PURLA OZTFW 64389 ETQVC GCIQW 12570 GYDHL VKFRM XCYXG
JAUBH TQCGV ICHWD UAPRT BSIDF NJUAN KCXJW BLQZO MSPSD EKEHI
54720 FZROB MNWOY TQVKE GMLFY 19368 LZBPD HQKIO MARLN 26740
IWYCH LXGDQ CTEGW OJCYU EHGMS PADSX BULJN TXFMS UYAZP JBKER
51839 RZVTF BT K

13 GPM RECEIVING PRACTICE

SERIES 6

13 GPM

D5B DE 8CW NR9 -Z- 271938R GR52 BT
MVKFP IWVQO OFCEQ WBGIC YLHXG FRVKM 02754 36981 TZRVW PTAUL
MJEBO IKVYN XYEGC QDSOM HSHPQ BTWAU RPNZL BUSIN FXJZD AKYPJ
OCUAZ EFBTQ BDPEK WRXPG JSZND IKUBN LTUJA BAZQO 82415 LFXCK
MVGYR IDHQW TGCYW MEOHV SMSXG 67390 INJHR QAOLS TVFWO CIFMK
ZBULS 26840 HQGWG COEDT XEGCY BEMHP TZXBW SDKAF ZUINJ JHRPN
KURZJ IYVLN BT K

12 GPM

2BQ DE 09R NR13 -P- 031323R GR50 BT
MAPDY 15937 RLQVF QKBAU MJNVU QWGEC DZTIC WVKRM XHVAR MSDHH
EYOIC XPYEL BZFXD NIJSN KZBAU POPRS GTLJW QGLFY 12750 98634
TAIQO LOZON GEHKX YCQPS UKSJN 49617 YFLRX VCKGH TDGWC EWTRV
WBZIO FVJUM EIYEH SPDAM LXBDF NQAZM 83952 57643 MVZPO COESX
JRXIW FKMYL GCDHG QEWIG TBTWC NAURF YUIQ LJKEB DMGSH PQHRA
BT K

13 GPM RECEIVING PRACTICE

SERIES 6

11 GPM

01K DE 3WB NR8 -M- 302146R GR46 BT
SBZXJ NFAKU ZNDCK 38019 LXTHR CVRAQ YXKIB MJOEN SGHEQ HMSDE
02357 DGMVW WQCFI FTOVW ZLYPU UPROA JTLZX PIWNB SJFBA DKUNZ
14789 WQOTE NZAKD IBSFN LJUXZ BWJUT PRAQS PDMOS BGHEK ICOXE
YNMVJ UPRYL FWOZA TCVQE DHGIC VYXLX 01257 34689 FRMXH LMGKY
VDHRF WGOIC ECZVT ROUWQ MJNVA LYCOP BT K

15 GPM RECEIVING PRACTICE

SERIES 1

14 GPM

8WFM DE U6C NR7 301502R GR55 BT
 PJGBN WHTEC IUMLJ HTSEG LSVWD 79486 RQKGB NSZFM VYZVR YTFAC
 EMQHO XKWIR KFDAP NWVLN JOGKL FMUVY UQXJI SREBR DQPZB DHYNZ
 15603 JKGPB ADGSF SNT0Z WKTCH WHETF 87429 ILKMO CZXAI XYAMD
 POZFX YZVDT KEBFS JKUBQ WIYSB LMUVG XKMGS HMZRN HAHZA 60279
 ETLYJ RCUWP OFCND RIOKL TEVJI WXQGS CVZJQ ICPFK LYJRE XWGDK
 ERGTO 81453 UBKTF YVDLM UVEIQ BT K

15 GPM

KY2 DE 7YBD NR8 312159R GR59 BT
 DLNOQ ZWHIM UAHNZ ADRSW JXMBD GJKLN OQSRT ZWHCE 32519 FIMUV
 XYAYZ WWSRP JGDBN OQTLH 01486 HFIKM ACEUH NPBVZ ADFGE RSKTI
 WJXLO QMYUB DGJKL NOQSR TZWHC EFIMU VXYAY ZWVSR PJGDB NOQTL
 HFIKM 32518 97463 ACEUH NPBVZ ADFGE RSKTI WJXLO QMYUB DGJKL
 NOQSR TZWHC UYMQO LZJWI TKRSE GFDAZ VBPNH UECAM KIFHL TQONB
 DGJPS RVWZY AYXVU MIFEL 09362 BADYG XJVKU LMNIO 57648 BT K

15 GPM RECEIVING PRACTICE

SERIES 1

15 GPM

8PQ DE R35 NR5 221435R GR59 BT
FQECH WYHZN 68403 WPVBS VRZPA JDGFG DBENR OSQKT LITHW JFICK
LMOQA CMEYU UTZRS UHNYP MBVQZ AOLDF GCXER UAEYC XVAMU KMFH
LECTH QWZON BYDZG WJVKS LRNPO 92572 12584 JQGDS RBTWI KSTHC
BWXIL OMYUR AHYNX PVBUM ZAIDF GECRK WTRJX LONMY UEMAO KXFWL
KORBG 79364 DJLOS TWDFM VYZSP GBOTH IMCUN BZDGR KIJLQ MUPJA
10279 HTKRF AKPDY BVZUM FIKVZ DBKHC EFBPH 52648 GPQFR BT K

16 GPM

RS2Y DE K7CL NR3 181946R GR62 BT
GEDAB XPSRH HXNVO 56482 UQOMK JFCEY PWTRN IHFEL BKDJL ZVSTQ
ZCMWU 17903 WGTGZ CABQY ZOJSX USJDM BPFWG GMVWK 14173 VQENA
TRLFT OTIJH CLRYB ZORCY ZSCQA MEXRJ HDOHU WEVWP FRISH PKKMD
VNTGA LQTNG 61193 CIXVL FYZOY JAABU 40473 RMMZE FEVYQ HTODD
RSKJT KFIWO HWLVU CPGXN LBQBN FZUIX 61725 QHAXP YRBHV TOLCL
CUNEZ SVJIF EJBWW OUYGK TPGQA ZIMXK JPTRK NMQWD UCBDG EYBQN
07143 OVAFL BT K

15 GPM RECEIVING PRACTICE

SERIES 1.

17 GPM

JW6 DE D2N NR11 081614R GR66 BT

NIFMP OSQSL PAUHN 24903 PSYLE JRXEB GVPIM VCAMC GILLH YFZEC

OSTDA TSRRU HVAZO ADRQF GWTSQ ZWYXU NFKOP XSJCD 24680 JKUVM

WGEBS 43124 AZXWY MAUGO TOMRQ VDJHU XQZAD PUKFO ZAVDY FASCO

IQDAN DCKOS IWFQA KDMNG UWZJT OMHHR PJPLX 09218 BVELX NYOXZ

TAIKW TARBE GDVUK BFVET ERFQM JHGIL RSXDU NCACD GNHOJ 67890

LWMZC XPWUV PYRYV XHKRZ 13457 FPRTZ EDCVA QPONM FGHRQ PZYBC

UPJIL KNMXW GFHIJ SSOLD EAXWV UTYNV BT K

15 GPM RECEIVING PRACTICE

SERIES 2

14 GPM

8WF DE U6C NR13 142106R GR55 BT
PJGBN TCHEW UJLMI GETSH WVSLD 76498 GBKRQ FNMSZ VYVRZ FATCY
HOMEQ RIWKX PADKF WNVLN OKLGJ VUFYM QIJXU REBSR BZQDP NHYZD
30165 KPGBF DAGFD TONZS KHTCW TEFHW 29487 LOMKI XIAZC MADYX
FOXPZ DATVY FEBSK BUJKQ SIBWY MUGVL GKMSX ZNRMH HAZAH 20796
TELJY PUWCR FODNC LOKIR JETVI GXWQS VQZJC DIPFK JELRY DWXKD
TOEBG 13548 FBTKU VMLDY VEQIU BT K

15 GPM

KY2 DE 7YB NR9 260719R GR59 BT
DLNOQ WIMHZ HANZU DARWS XBDMJ JNLKG ROTSQ HEZWC 75293 MUFIV
ZAYYX VPSRW DNBGJ HOTLQ 60814 HIMKF HACEU PZBVN GADEF SITKR
LOWJX MUBYQ GLKJD SONQR HWZTC JUFIE XAYVY WRSVZ JDBGP NOTLQ
KIMFH 21853 CEAUH 43697 PZVBN FEGDA SIKTR LOJXW MUBYQ DLJKD
QRSON HTCWZ MOYQU JIZLW REKST DAFZG PHNBV CAMEU FILHK NOBTQ
JSGPD VYZWR YUAXV FIMEL 32069 DAGYB VUKJX NILMO 68574 BT K

15 GPM RECEIVING PRACTICE

SERIES 2

15 GPM

8PQ DE R25 NR4 091733R GR59 BT
 CEHQF HYNZW 08436 BVSPW RAPVZ GGDFJ NEDBR SOTKQ HITWL CIKFJ
 LAMQO YECMU RUTZS HYNPY BZVMQ LODFA XRECG CEYAU MAXUV HIMFK
 THECL NOWZQ DGYZB VSKJQ ROPNL 22759 GDSQJ 41528 BITWR SCTHK
 LIBXW YOURM HANXY MUPVB DAZIF REGCK TXJRW MONLY MUOAE WXFLK
 RGBOK 34679 SODLJ WMFCT YSPZV HOGTB MUNCI ZGRDB JILKQ PAMJU
 71092 RHKTF PADKY BUMVZ KIVZK DHKBC PEBHF 42168 FPQGR BT K

16 GPM

R2Y DE K7C NR31 101632R GR62 BT
 BADEG SHRPX NOHVX 62854 OKMUQ JEFYCN TNRWP FILHE JKLDL VQSTZ
 MAWCU 31079 GGTZW QADYB SOXJZ SUMDJ PGWFB MKVWG 11374 VANEQ
 GANTV TGNQL 12169 VILCX YOFYZ BAUJA 44037 ZERMM YEVQF TDODH
 STJKR WOFIK LUWVH GNXPB BBNQL XIFZU 12576 HAPXQ BVRYH TCOLL
 NYCEZ JVSIF BWEJW GOUYK PAGTQ MIKXZ TKPJR MWQDN BUDCY YNBEQ
 13407 FALOV GEBDA RPXSH HXVNO 56428 MKUOQ FYEJC RPWNT LEFIH
 KBDLJ STQVZ BT K

15 GPM RECEIVING PRACTICE

SERIES 2

17 GPM

JW6 DE D2N NR12 090427R GR66 BT
PINMF SOSLQ HANUP 30429 LEPSY BERXJ GIPMV MACCV LILHG CEFZY
TADSO RUTSR HAVZO DAFRQ WSQTG YUWXZ FOPNK SDCJX 60482 KUMVJ
GEGSW 12344 ZAYXW GAMUO ROTMQ DUHJV DAQZX FOPUK VADYZ SOFCA
DIQAN DOCKS FAWQI DMNKG JWZTU HHMOR JXLPP 10829 LEXVB OYZXN
KITAW BETAR KUVDG FETVB REFMQ LIJGH SUDXR CADNC JOGNH 76098
MLWZC WUPVX RVYYP HRZKX 41735 RFPZT VEDCA NOPMQ GRHFQ ZBCYP
LIPJU XNMWK FIGHJ LOSDS WAVEX NUTYV BT K

15 GPM RECEIVING PRACTICE

SERIES 3

14 GPM

8WFM DE U6C NR7 301502R GR55 BT
PEJGN WHTEC IULMJ EGTSH WSVDL 84697 BRGQK FSNZM VRVZY YAFCT
HEMOQ RIWXX ADPKF WLNVN OLGJM UYFVM XUQIJ RBSEB ZQBDP HZYDN
36051 PKGVJ GAFSD OSTOZ CKTHW WFHET 49872 MLIKO ZIXAC YDAMX
FPXOZ DAVYT EFSKB UQBKJ SWBYI LGVMU GXMSK MNRZH ZHAHA 02697
JEYTL OUCWR NOCFD OLIKR JEVTI XGQSW VJZQC CFPKO JEYRL DWKGX
TBGEO 83154 UBKTF YVDLM UVEIQ BT K

15 GPM

KY2 DE 7YBD NR8 312159R GR59 BT
DLNOQ ZWHIM UAHNZ SAWRD BXJDM NKJLG RQSTO WEZHC 75932 UFMVI
YXYAZ VPWSR DJNGB QLTHO 18064 KHMFI UCAEH VNZPB DEAFG TSRKI
JLWXO MBYQA GKDJL SLRQN WTCHZ MFEIU XAVYY WRVWS BPGSJ TOLQN
IHMFK 51832 49376 UCAEH PVZBN FAEDG STIRK LJWOX UMQBY GKLDJ
NRQSO ZHCWT YQOUM WZLIJ RTEDS FAGZD NBPHV EAUMC HIKFL TNBQO
GPSJD VZRYW VYUXA IEMFL 60239 AYBGD XJVKU LMNIO 57648 BT K

15 GPM RECEIVING PRACTICE

SERIES 3

15 GPM

8PQ DE R35 NR5 221435R GR59 BT
FQECH WYHZN 68403 BPSWV PRAVZ DFGJG NBRDE SKOQT HILWT JKCFI
QMALO MUEYC SZTUR HPYNU BQZMV LFOAD EGXCR EYUCA MXVAU FHIMK
TEHCL WOQNZ ZYDGB WSKJV PROLN 27259 82415 DQSGJ BWIRT SCHTK
ILXWB MUORY AYNXH UVBPM AFZDI REKCG TJWXJ MNLYO UMOAE FLXWK
BOEGK 96437 OJSLD WFTMC YPZVS TGOBH CUINM ZGBRD IQJKL UJAPM
07921 RTFHK KDAYP UBVMZ IVZKF VHKCD PFEHB 26485 GPQFR BT K

16 GPM

RS2Y DE K7CL NR3 181946R GR62 BT
GEDAB XPSRH HXNVO 56483 LUQMO FEYJC RWPNT HEFLI JBKDL VZQST
MAWCU 70931 GWZGT YABQD OSXJZ JUSMD WBPGF KGWMV 17413 NAQEV
FILIR JOTHI LBCYR COYZR SQCZA RXJME OHDUH WPWVE SRHFI KMKDP
TAGNV QGTLN 19216 VILCX YOZYF ABUAJ 70434 MRZEM YEVEFQ DOHDT
KTJRS FWOKI VWLUH CNGXP QNBLB FXIZU 51726 XHAQP RYVHB COTLL
UZEEN VFJSI WBWJE GOUKY QPTAG XIMKZ RJPKT QDWNM BGDUC EYBQN
07143 OVAFL BT K

15 GPM RECEIVING PRACTICE

SERIES 3

17 GPM

JW6 DE D2N NR11 Ø81614R GR66 BT
NIFMP OSQSL PAUHN 92Ø43 LSYEP XBEJR VIPMG VCACM LHILG FCEYZ
SADOT RUSRT VZAOH RFQDA WQSGT XUZYW OKPFN JDSCX Ø1846 UJVMK
WSGBE 24143 WZXAY GAUOM TRQMO HDJVU AQZDX UOFPK VZAYD CFAOS
QDINA ODCSK IAQWF GMKND JWUTZ OHMRH LPXPJ 92Ø81 LEXBV OZXYN
KAWIT ABTER UDVKG EFVBT MFQRE IGH LJ SUDRX CNCDA OGJNH Ø6987
WCZLM UPWXP YVYPR HRKZX 41375 TFPZR VDAEC NPMQO FQRGH ZBPHYC
IPJLU NWMKX FIHGJ SSOLD EAXWV UTYNV BT K

15 GPM RECEIVING PRACTICE

SERIES 4

17 GPM

BAØ DE T4G NR6 -0- 281315R -FM 6S3 -TO FP2 GR66 BT
 SECKG BIXHE YVYNC JALOM VOFRW PETUZ 3657Ø WGCQT IHDCQ 28149
 XVLKG MFXRY KGRYF MXHVL GIDQW VETWC RZFQT 457Ø9 U VO LJNMY
 DGIEB XOYEC 16382 SHPMD OHRAS TPBWQ XJULZ SNIBF DUJNA JSDZK
 AUNKZ ZNIIB JWXPF BULSO REGHA MGSKE HIYDP XNBJC AVPLY UMFRO
 ZVOTW CWEGQ DCITQ 48963 KYMVH Ø1275 FRXLG SFNMA JNZDX JTIUK
 ZBPLW SQODR PMAEU SEIHG XOHKB YANLC VPJUY Ø5763 FWVRO CQMET
 ZGQTI WCHKV TLBCW FNALK TOUIL FKQPT BT K

16 GPM

XY31 DE 9BO NR13 -Y- 14213ØZ -FM T8C -TO 7RH GR62 BT
 81429 DGYLX MFRLY GDRKX HVCMF GWCIQ 824Ø3 TVWEQ FVAOT RULPZ
 YMONJ XBCIY HSDKE EMSPG QAROH 56971 WLTPU XFBZJ DISNB NUJKA
 SDNAZ UJBKJ JBFTZ WLIZX RPSAU ODQOM GXKES HIYEC JOHNB MURAY
 FWZLV 48Ø93 VTCOP GIWEQ CHDQT 12576 KFYVG RFLMF GYNXL RKDVH
 WCIGC 4Ø517 WZRTQ FEQOT LMAVU JNVOP XEKXY NHNIB SSPED 28639
 UAPOR LWJQB IZFTX SDSZN NJBKA GNUKH SNJZA FZJIB LWXTD BOQAP
 RUSPD HSKEM BT K

15 GPM RECEIVING PRACTICE

SERIES 4

15 GPM

SW1 DE C1Ø NR1 -M- Ø8Ø25ØR -FM B03 -TO IB2 GR59 BT
 HGIXO BENCY JMVYO PZAUŁ TVWRF 39Ø76 CGETQ DWQIC 42158 CKHYG
 XLMRF KNSUA FJNZD BITZJ LAUXW PBR50 PDHDN EKGES HHOXC BVYJI
 UPLMN 93486 TZVWA ROQCF TWGEQ 172Ø5 CKVIY DGMLH XLMRF YVGFK
 RDHCX 3Ø647 WGTQI WVZEC RVLŦQ APUOF YCJMN BXOYI 15298 KEGEH
 PDOSN RPQSH LTWUA FIXZJ NSBSK NZDUJ BZUAD DXNZB SITNJ FOULW
 BSPAR DQMSP GIKEY YNBCE HYOJX OPAML 13Ø58 RWUVF JVCTZ BT K

15 GPM

RF6 DE JPØ NR16 -R- 18Ø713R -FM TG8 -TO K9G GR59 BT
 YKVML XFRQA LVIDG CRFXV GHKMW 1872Ø CTVWQ ZOTEQ RLAUF MNJYV
 CBYIO HGMSE KSHDE RPABQ OTLPW JZIBU DSJXF NNUKZ NXSDZ FKANJ
 JIBUZ TOURP WDALS PDAMQ GDKES BOJCH YXLNI YAPVM 89143 RZUFO
 45962 WTVCP TGQEC DCIWQ Ø7526 HFYKR LMVGX SKUAD BJVFN XWLTİ
 JAPZN SMDQH LOGSU HİDEB CYEOB Ø5893 LNVYJ MPUAR XWRZF VTCEP
 WGQQT 41267 CVIDH LYMKG FMXRH YGGCV DLIXF RQECG 97185 BT K

15 GPM RECEIVING PRACTICE

SERIES 4

14 GPM

6JB DE BC1 NR3 -R- 301650Z -FM L3N -TO GM61 GR55 BT
SQASP JXBUL ZUSIF KJDAN PZTWB NODMR GEIHX NHJOK MFUER VKTTP
KNZCZ SEHED WUTJQ BSNIJ LXZFD BOAPR JPMGS BIYCH XVANO LYMJP
RFWOU 40369 ZTCEV ITGQQ 21785 WCXLD YRGFH KKVUM CJONY GKXIB
DSHYE LARVM PMHOU SOPAE BPRUP NIULX JSANZ BFJDZ WfvzT LYTKW
CTEGQ RICFW 93601 KHVGM 24875 DKQXM IDHCY LGVFR VHNMY 21507
TQCWG OZERF VUWAT LOIXP BEQCY BT K

15 GPM RECEIVING PRACTICE

SERIES 5

14 GPM

M3J DE FW2 NR4 -M- Ø21725R -FM SV3 -TO LH3 GR55 BT
MATCH BRUSH CHAIN BLITZ GIDDY GAUDY NAVEL CLOTH NEEDS SLAVE
SLANT MUSTY HENCE MURDY LINKS CHAIN LILAC LIMIT REFIT RELAY
OPTIC RIGID REVEL TOTEM TORCH VOMIT VIZOR WAIVE YOURS XEBEC
WROTE SCALD WORTH OBESE NYMPH NOVEL AFFIX AGENT BEACH BIRCH
STOVE BLOWN CATER DETER SNEER DERMA SNAKE OLIVE PAINT BRUSH
ENACT EMPTY GIANT GEESE GALOP BT K

15 GPM

AF9 DE JVØ NR5 -M- Ø31823R -FM RB6 -TO XQ8 GR59 BT
OPERA OUNCE PEDAL DIRTY LUCKY KEMPT GAUGE LOOSE USUAL VENAL
WORSE GAUDY VEERY YEARN RAPID SWIFT SHELF GAUNT VAPID YIELD
XRAYS GAVEL SKIVE GAUZE SLAKE BETTY UPPER HEAVY ISSUE SALLY
UNFIT SOUND SWORD CLEAR SOLVE TRUNK EMPTY SPACE FRUIT ELITE
PAPAL VENUS LABOR RUCHE ROUSE WALTZ POLKA DECAY ROSIN ROOMY
ARRAY SPOUT BOARD SPICE ROUND OUTER STEAL WAIST WAIVE BT K

15 GPM RECEIVING PRACTICE

SERIES 5

15 GPM

M3J DE FW1 NR2 -M- 050625Z -FM SV1 -TO LH2 GR59 BT

AWARE BATON SATEN DEVIL JESUS BIBLE SAVES WAFER ALONG FLOAT
DROLL EJECT TREAT GIVEN VOCAL SWEAR HAITI KINKY VIVID STOCK
VOICE STEAM LATIN GUARD FARCE TUMOR PLANT BRAIN SCENE SCENT
STAFF SHOCK NIGHT QUACK TIMES NICHE POUND PEACE PIOUS PANEL
FANCY BUCHE REACT CLOWN BLIND BLEED LARGE BLEST HARSH SHEEP
CHIME SPINE SCALE CHOIR CHOPS ANGER PROOF SPORT LODGE BT K

16 GPM

E32 DE HG26 NR7 -R- 210415R -FM SC18 -TO PY8 GR62 BT

MOUNT PATCH NEVER LOYAL JOINT HONOR COVER DIVAN DIZZY SEIZE
DODGE DOUGH PASTE FRIED FLINT SMOKE DOWDY SANDY BELOW CLOAK
OCEAN FAMED DUMPS COURT DITTO TWIST CEASE MARKS OFTEN JUICE
SPURT CHEEK JIFFY JOIST BONES FLOUR DIARY MERRY JINGO TWICE
ELDER WHIRL EASEL ELEGY HERON FLOWN HEAVE BINGO CROWD UNITE
BEAST DRIED CHASM LOFTY HAVEN HAREM VIXEN MINCE HURRY SWIFT
SHRUB AHEAD BT K

15 GPM RECEIVING PRACTICE

SERIES 5

17 GPM

X91 DE VM3 NR16 -R- 232123R -FM BD6 -TO LY8 GR66 BT
BERRY KNEAD CLOTH GLAND BLOOD KHAKI KNIFE LABEL KNURL JOINT
SKILL HENCE UNFIT ANGER IRONY ANNOY IVORY JOUST MOUTH BREAD
FROST GRUFF LAUGH VISIT PIVOT GUESS ARMED GUANO DEBAR TRADE
HOURS PAIRS STOCK DANES CURLS CURVE CUPEL MANGY ABUSE SEWER
KNEEL CAUSE DRESS ADULT CHILD GIRLS LATHE MANIA TWIST UNION
FIRES JULIA DIASY RIFLE STEEL SQUIB VICAR ACHES ASHES ANGLE
SPUME SPEED MIRTH DECAY SPIRE VAULT BT K

15 GPM RECEIVING PRACTICE

SERIES 6

17 GPM

UT5 DE 1GC NR1 -R- 100345Z -FM NW7 -TO LA1 GR66 BT
 ECFPY GRNEH MSVKC UVGAT 95024 IQLVK MOSYH QDTZW RVXSE CWFTH
 KNLTJ BIOYU PZNGH SFBCA 26148 JRHTL INJAU VXOQD UYDTS MWA EK
 QTGIY VMRLF EXXOB ZMWKG 09753 QAPBZ NXSBE TCAVD NJFHM FVWQI
 PNWUI OISYQ MVWLR EQXDG KRLYM 35980 FZWOJ KHGTR SAZUL DJOXB
 KCUTH PYCGA 27614 FHYKX RMLVG DNUZB KJSFZ ILJXN KQCWI PYJXV
 MGS HO WRQDP TUSPA KOHEB CMILY URANE 43752 OVZTE CGFTW 96801
 QVAKU ZXFLY NTKLE JBWAM TNSBB IGEOP BT K

16 GPM

MC22 DE BA19 NR16 -M- 292118R -FM CR1 -TO TP6 GR62 BT
 JRMGN SDNFV KHDIB TBJCI WQZXW POSNL QTEGW VZPOL TMARC UASRB
 PKXHQ GIJBE VCHNU EOYEY 97835 60421 ZXJUD KSRPX NZUML QBEXY
 PCGSO YVADK 58371 CHTWQ UZJBH LRSPI FBNAJ VLNOE WETIM AROTG
 KYIQG FMWFD 26490 HVCLM XFUZD KYSJN GKIQD NXUFO BKWNZ CPTVL
 PLJSA PIARB HQBXI EJPOS GQCTW HMGDY EYCVM 43287 EVHOZ WRUFA
 90561 XLRAP SDMEK UABZW LXNKZ DQTIG YHGRK MVGCW EBHUR FDJSN
 JIVOP SQBEJ BT K

15 GPM RECEIVING PRACTICE

SERIES 6

15 GPM

BAØ DE T4G NR6 -0- 281315R -FM 5S3 -TO FP2 GR59 BT
SEHKG BIXHE YVYNC MJLOA WVFOR ZPTUE 7Ø365 QCWGT IQCHD 92481
LVZKG MYFRX KRGYF LVXMH WQDGI TWVEC TFZRQ 974Ø5 UVOPA LYNMJ
DIEGB XYEOC 26138 SHMPD OARSH TBPWQ LXZUJ SBNIF NJUDA KZDSJ
KZUAN BZNII FWPXJ UOBSL AHQRE MKSEG DHIYP XJBNC PVLAY CFMUR
ZOTVW CGWEQ QTIDC 39648 KVMYH Ø2817 FLXRG SANFB XZDJN KUITJ
ZLPWB RDOQS UPAEM GHISE BKOXH CLYAN YJPVU 356Ø7 OWFRV BT K

15 GPM

XY31 DE 9BO NR13 -Y- 14213ØZ -FM T8C -TO 7RH GR59 BT
81429 DGYLX MFRLY DGKRX MHVCF IWCGQ Ø8432 ETWVQ FOVAT ZPRLU
NYOMJ XIYCB EKHSD EPMSG HQROA 17956 WTLPU XBZFJ NDBSI KUNAJ
AZNDS JUNKB TJZBF WZILX PRUAS OQPDM SGKZE EIYHC OBJHN MAYUR
LZFWV 3948Ø PVCOT QGWEI TQDHC 17265 KYVFG MRXFL LNGXY DHVRK
WGCIC 1Ø547 TQRWZ TOFEQ VLUMA VNOJP XEXKY BYHNI EPSDS 23986
PRUAO BLJQW TIXFZ NSUDZ KNAJB HKGNU DJNSX GBJXI LYFCW BT K

15 GPM RECEIVING PRACTICE

SERIES 6

14 GPM

SW1 DE C10 NR1 -M- 080250R -FM BO3 -TO IB2 GR55 BT
HGIXO BENCY JMVYO LPAZU TRWVF 96703 TCQEG DWIQC 58441 VKHGY
FXRML KUSNA FZNJD BIZTJ LXWAU SPROB PNQDH EKSEG HVH XO BJIVY
UPLMN 63849 TAZWV FOQRC ETQWG 02715 CIVYK HLDGM FXRLM KFBVGY
RXHCD 06347 WQGIT EWVCZ RQLTV OUPAF MNYJC YOBIX 95821 KGEHE
DNOPS RSQPH UAWLT XZFIJ SNKBS JZNUD ABKUZ DNXZB SITNJ LOUFW
RBPSA DPQSM HIGKE EBNYC XYJOH BT K

60

END

TM459-74

18 GPM RECEIVING PRACTICE

SERIES 1

16 GPM

6C5 DE V4T NR7 -M- 150949R -FM TC4 -TO VG5 GR62 BT
46821 CHKNS BEMPY WZTUI LQRXA FDHOJ VCKRT HFDUW XIENB PZYQM
AGLOJ 37509 SBNQU XYIGH FEDOS TVKJZ WRLCM APOQC KMYZE GHSVA
JWBIX DLRNU PFYJL CZMSI VGPFR DOHUE WUXAQ NUJOF 37205 MGWQC
LKRSO UJXHY ZIVET NPABO 91648 LVOZX HSUIN JRTWK GPEQB YMFCA
JQGTB ZLVFW RIPDM YHUCO AEKNS XYZWI PJUVM XSTGK RADNH OQFCE
LBOUG 93064 LQWSJ YVRNK CIVEF ADHMP TZYWX RPOLB AFIQS CZUKO
HMCQT JORVZ BT K

17 GPM

PD3 DE SM1 NR2 -R- 011011Z -FM SF7 -TO YQ3 GR66 BT
XTGIC BAFKQ WSLDH EMNPU 07369 52418 ZYJCD HMORK BWUNJ FEAPI
CQVTY XSLCG 27659 MOJDA BFQWV ZXUNG IELRS PKYCD HNPRW ZXXJE
BISUO VUTQL GFAJQ 18304 07629 MAEIS LVUWP HNOCB DGZYT SRKFA
ILORG FSJNY VZTST BHKMQ XUWEC CGJMO EHSVU BILKN QADFR YTCWX
15853 PAJNY XUSRO DFIKC BEHRM LHGTW PZYVC XQOLI BFHJK NSTMD
ECGPR UTJHA DBFLP RMQWY VONGI ZCESX 84260 UDGNT 93517 AILER
ZQPMJ FCHOV XBUYW AJMOW ZKQIF CXSRP BT K

18 GPM RECEIVING PRACTICE

SERIES 1

18 GPM

CY4 DE ID5 NR1 -P- 071420Z -FM HF6 -TO VE5 GR72 BT
 NDHLK VTEBU GFMPU ZJGDB CHAIL RTOWX YVQEK NSDIX 05146 97382
 CBFSO NAEHR VZQJL KYUWT PMZUJ CEHMK AQSPL GDWYR XTMIF BOUPL
 BEHNR 62918 53047 ZDIMJ KCQTX SYWOG FVADH MPRIE VYOKB AZWSN
 QXUJL GFCTF XTQOI ALNPH ZUKJG EBRVD CWSMX JZWYT BEGCI NLOKQ
 PSURH FADMV YLJGO 57420 18396 SPKEX YUQIB AZTFM NHC DR WVZJK
 BMPHV WRQLY UXTIC EGDON FSKQZ OYUIG BFJLS VXRHM DNECT PWAZO
 13569 80742 DENTQ YPJGB AISRU WMVHL DFYQM BPADU XVSLJ FHCOR
 TWZKI ENFKU BT K

18 GPM

LP6 DE ZR1 NR13 -Y- 191345R -FM XY9 -TO DP2 GR72 BT
 CIMPG YRZWX VSOKE ABDHL NTBFBQ 26497 01538 NZXTO KCYUP JRWIE
 DGLHM SVACP ZWJME BHNOQ GDKTV RXIYL ASUQN YDVZS FBCGA HJILR
 UXWTM IOPFJ SWZFX QYDCH VILGB AEOPM NRUWL AHOPS RDCFJ KIEBQ
 GZXNV MUTRO JZWSF CBIQE ZTLKA HPGDM YUNXA 93681 72045 DHJOC
 YVTZN LTQIF WRUMG BESXK CFJHO VXQPL UZSID BAGNR WIMYE KJOTD
 WQMHF IVXSR CPABG LKEUZ NYCHJ VUSQP ZWKFB DEAIM RONGL UTXOD
 BJLFP UVSEH ZWTYQ RXNIM GCAKW PZLGD XUQNI YORMT VSKED FHACJ
 PMQZA WYRDG BT K

18 GPM RECEIVING PRACTICE

SERIES 1

19 GPM

WS6 DE FT2 NR17 -0- 061803Z-FM TW 3 -TO AB9 GR76 BT

29837 51604 KJOQE BHAFM WZRCS TUXVN ULIFG DFIJC WUTRO LYXWZ

SQKAG HDBNP MLUYR 02795 16438 OZWSH BIKJG QMPFD AECNT XVVCA

53746 82091 IERSU YQFFL ZOGDB HJNMR WXVRN KIGEC TPKFH ZWWT

JDAFM UQPXU OLBKD ZRXVD USMLJ ACGLH ENQKB 65931 70482 AJKJL

HBHEQ BGVXY UCKDU BYBGB SHNKC YMNPB IWTUZ ARLXQ JHFOD TKVRC

WDFUH NEXBI MUPQZ GSAVH EYKZM COAQP WLNCR TLZJV FDEOS XIGHY

PIMCG RWZXY OKESV BADLH TFQBN 64792 10385 ZTOXN CUPYK WREIJ

GHNLD CAPVS MEJZW HOQNB KTDGV LIXYR BT K

18 GPM RECEIVING PRACTICE

SERIES 2

16 GPM

AB2 DE 5U4 NR3 -Z- 021558R -FM BT1 -TO YH6 GR62 BT

JAFCH BKVES TRYMO BGJTQ KTJWR BEGQP AFYGM WVZFL MPRDI OUYCH

SKANE IZXWY MUPVJ KTXVS HDRNA EFOCQ GOULI 40963 LWLSQ KRYNV

FEVIC PHAND XYTWZ BORLP SIAQF DUVKG TCHGN ZRJVO CGXIT QFBKA

HLWDS UNEPN 93067 84512 DJZCY KOHRN JUBNW IAFPE YVGTU GLXCS

96297 AJMDO WQBTF HUZNX SLIRE DYPCK WPHRN EKZJX OSBUI LTGVY

QAQFJ 83104 96027 SEMIA PULWV BOHCN TDCYG AKXFR GORIL YJFND

DNAGT 86841 BT K

17 GPM

PQ3 DE LF9 NR13 -M- 170930Z -FM MJ3 -TO QB1 GR66 BT

TZVSR QKBNH CWXEU OJCMG USEVH NLBKI IOXLQ CYPBC WGLTH BHBRE

CIDKF OXFRU YJPNA 38155 XCYWT RDQJA KHBKF XCWYT DTNMS RGETC

UJAHT PFDLD IKRWM INBGO XFZGC 02864 TGUND UEVBT KNHLD PSCRX

FQZIK WMAOJ WUXYD VFHOC JPZNQ RLAEI 75913 IQXNU DOPGC QAGKC

UMGPF BGZDK LACIH XROWT KQYEV XDMIS 61054 23987 OFCSB RENHA

DOXTY GLONR MADIE BFKWZ PQSUV HJYCN ZULKE BGPAC XSRVI HFQMW

JOTDK MEYWT GNBRA DISUZ QPVXL XOLZV BT K

18 GPM RECEIVING PRACTICE

SERIES 2

18 GPM

RP8 DE WT1 NR1 -R- 091745Z -FM GI2 -TO XE7 GR72 BT
 JFHOC KSEBX GRUMW FTQIL NTVZY XNZTV RTMUO WSZFJ QIECB TLAKZ
 GDPMH NUXYA 68139 24057 JHDOC WXUTM PIOFJ WGZSX DYQCH LIBGB
 MOPAE WULNR POAHS CRDJF KIQEB LIHJR CBJAF VSZDY QUASN YXIBL
 TDKGV OHBNQ MWZJE CVSSP GDLMH PICMG WRYZX JSVIE HBADL FTNBQ
 96247 31058 TZNKD UCKYP IRJWE KNEFU KWTZI OHFCR LVXSJ DPBAU
 QFDYM HMWVL RLASU GPYJT TECNQ LXUTC OGEDN QSFKZ IYOUG LFBJS
 MSBRH CNVEC ZWPAO 63159 40872 LRWQY HMBPY JWZK DHNCR MFZAT
 BUYQI EPSKX BT K

18 GPM

5Y3 DE 2AX NR5 -P- 151430Z -FM GT3 -TOKL7 GR72 BT
 OTXQY LPANH JUZKG VBERD MWXSC YZJWT CEBGI KLNOQ RSPUH MAFDV
 UPNED XSLKW ZHBOG YRQIA VTMJF CENRW ZPJDK YOIFB VQLGC TSHMA
 XUEJR ZOFCE VUKHG YSIMA DLWQP TNEQV 86302 GNUIM YCBDP 54197
 SJLFA XWZRO TKHIP XRMGE CYSJK ONFAD BHLQT ZWUVO DGKRW ZXQMJ
 TLEAB HPIFU YVNCD 09783 56214 MSWKF HIOUY ZPGVN VKRCA EJKTX
 MAFIJ XYTQP KECLS UVWHG DBNOR ZXYTS ZIJLE ABNCD GWHRO PKFUV
 MZKGF 65480 33179 YOPKI ADMTV WZXJL SRHCB ENUCG KJRXZ WYTSP
 98136 27540 BT K

18 GPM RECEIVING PRACTICE

SERIES 2

19 GPM

UKQ DE IMD NR6 -0- 290929R -FM MI7 -TO HD2 GR76 BT
 MUKHD ABEOQ VLIFB YUVWZ FLPOR TSEIA GHKNM QOJCZ 95678 04132
 VUKDA FHOSX ZYOPB ZGEMN LJCUF LNVXZ ADJKT QWGLE HKMBC OSPRW
 FTUFB OLISD ZMQGC YXJHE ANPVR 45671 TNEVL XRJFQ ZSHGU AKPWI
 32867 JUSTW CLRYH AGMPV COVYR BDKOX DFINQ ZUMID AFKRX BLSWZ
 VTGMJ CEJOP QUSOK ANSZM HQUEC WIPVF GDBLJ RTYMS 69032 XJZLW
 IEMNO WGCPJ XSLKF UZQHA DBTUC VZXPL IFRVG NAEOU QTJHB DLSMW
 URIDN 02471 95286 YOGKB VLWJU XQHEA TSXZM FPYCJ VXLGK TOKFU
 MRBHI SPAZE QWNVI HSETO JRWGC GLYJO BT K

18 GPM RECEIVING PRACTICE

SERIES 3

16 GPM

WM9 DE JR7 NR6 -Y- 011515R -FM JR7 -TO WM9 GR62 BT
 BLNUY ZQPKA DFMCN 04682 13579 KHUYG ZSMEF PRIBA XLDOT JQVWH
 WSOQT BMUXY JLDRV ZQPIF ACGKN ZNHDP TISEA 27531 46890 LMQRB
 CGFOK JUYXV WDELM YCRSA UJPQW ZIGHB FKNOT XVDHN YCVJK GQXTU
 OPRWF ABEHI KLMRD SKMGF ZQNH B ACIJL XVOPI UTWEM REFUV YGQTA
 CDKSW XJZIH BLONP ZAYBX ZWDVE UFTGS HRIQP JOKNL MCAYB MCNDO
 EPFKG RHXIS WJVKU LIJVT 37931 08654 58672 LKUWM 09142 XAYDX
 CTRSD IENHQ BT K

17 GPM

8CK DE 9EX NR7 -Z- 101214R GR66 BT
 PBOCN KWZIJ MGLQY BKPTG 94351 62708 QJCEA SMLXV WOIUH YXUMB
 POIUY GRDWA QSEFT HUKOM NGVDZ ZECTB NYVRE PLJUV DAMFV USRPH
 PLIJY TREWQ ASDFG HJKLM NBVCX QAZXS WEDCV FRTGB NHYUJ MKIOL
 OLKNQ GECBI WZYJT SWMXC 93751 02846 RBVED KUJZG NLP AH QTOXY
 WRYDZ SLQPA HKZNE ZJMUP YTKWU MLTHW JKYGP OEDGS 42769 05742
 EQPLX GBRNA MIVRX BLWHT IDZLF URXUS JYTNA XXYWT ERQFA LNSKI
 JOCGM WCXEW MBQHK ZTVBY JYFBY PFOGY BT K

18 GPM RECEIVING PRACTICE

SERIES 3

18 GPM

4BD DE 8LX NR8 -M- 170748Z -FM 8CK -TO 9EX -INFO J7B GR72 BT
 ORILG KAXFR ZTDYG UPLWV ESIMA 79062 34108 FQSAJ TLVQY SOVUI
 KEJZK PWRNH XEKJQ SOIUD TVLQL IESMA OHSZN UPSZK OHDRM UDKZB
 FAZMH WZKZM SAGHD YMQZP FECKO DPENU SLKXW BZOHZ RQYIA TJMVF
 NECRW JDPZK OFIYB LGVQC HMSTA EXJUR FOZBC HKVGU MSYAI WLDPQ
 NQTEV 36802 UGMIN BCDYP 49175 LJFAS ZWROX PTHKI MXGER SJYCK
 FONDA QHBTH UWVOZ KDRWG MXQJZ EBTLA FPHIU NYCVD 70839 15614
 KSMFW OHTUI BPGNZ RKVAX JLTXE IMAJF YTXPQ CEKSL WGHUV OVNDR
 DUTSE XFVHA BT K

18 GPM

GX5 DE 5HB NR16 -P- 171200Z -FM BD77 -TO PH4 -INFO BF6 GR72 BT
 YTXZS JIQEL NADVC GOHRW KVFUFT FMZKG 48065 71293 OKIPT MTDVA
 XZJLW HSBRC UNCEG RKXJZ TPYSW HSNUM EBOAQ LIFBV VYUWX PDLFR
 STEAK KMGNH JOCQZ 69587 40231 DKJAV SOHXF IYPZV MEGWN UCJKF
 XLNZV KAJDT GEQWL BHKCM PRSWO FKTUV DOLXE QGMXZ HYSJE RPNVA
 95410 82736 TUJSW HLCYR PMGVA OKEBX NQFID MDCIU FRKAX WBLZN
 VHTGH JEOCT XOYKQ ANSZM EHQC VPFIW LGJBD YDRTM 30926 61475
 ELTVN JQXRF HUZGS PIAWK VRCYO MOINE CJWPG KFXLS QAUHZ TCDYB
 TVEQN GXERM BT K

18 GPM RECEIVING PRACTICE

SERIES 3

19 GPM

G84 DE G85 NR14 -R- 091415R -FM GX5 -TO 8LX -INFO 4SL GR76 BT
XKVPZ RGIVF EUNOA JBQHT SWDML INYER 41072 36985 GKYBO WUVJL
HAXEQ CMTZS YJFCP LDVGH KUTFO BIMHR ZASAP NIQVW EOHTS WCJGR
NYBUL PAZLQ MNDXF 62084 59173 UGKYH MFZES IAPBR DTXOL VHJWA
OTEQS UYBMX DVJRL PFZIW GNAKO HYZDN SATEI 51237 KHMUO ZEEZB
BNREY UPSRH IPYLJ GBECI 02684 QLKNO MFBVA JPLDU ERVYN EPBCZ
VZNDG ERFSS SAWRG ILKMO HJYNU RBTGF DBECW SQAZX VXCGN LKJMN
DAFSB RQWET OYUIP UBYMX OHUWI GQLYN WJZKI BNZPO FABHX DSETU
MYSLB JAECQ 62870 39154 KGTBT JUOSQ BT K

18 GPM RECEIVING PRACTICE

SERIES 4

19 GPM

1XO DE 8CK NR8 -M- 070413R GR76 BT
 FGYPQ EQNAI TDRSC YZABX 90142 KMWLU 65387 50846 93127 ILPVJ
 KWJVU RXSXI PFGKE NOZDM AMBZY KLYJO PHQRI TSUFG DCVEW BAZXY
 OPBLO HJZIX KWZDX GATQI FRVUR WMPUD OUXVP ILAZJ HZQWN GWKFN
 DKLRN EHIBA FOWPR XGUTQ VKYZJ DXSNB KTFNO VIHZG PUWKJ RYAXS
 DMYLD YXDUJ GKFCO KBLMQ 84069 51237 SATAI HPZON GANKZ PFZIQ
 DBJRL UYBXM OTEQS VHJWK DTXLO RIVPA MFZES UGKHY 51739 62084
 MNDFC PZSKQ NUBLU WZRGJ ETSOH NQIWB ZASEP VIRHR QTUFO LDVGX
 YJFCP ZTSNO HAXEQ WUVLJ GKDOG GPBNZ BT K

18 GPM

PX1 DE CL2 NR13 -R- 122317R -FM G84 -TO 1XO -INFO VO5 GR72 BT
 36985 70214 INYER SWBML JKBTQ EUNOA RGIVF XKVPZ TZPBY FKLXS
 CGPWG NONEI RZYOB IKWAP HZUSG RKQSG ELTVN 61475 02693 PDYMR
 DJGLP PFIWV KZUIE NMAZS XQKYJ JAEOT NGHVT ZUEKH MZNSA QOKXY
 EOJEZ HBNGB ZDLSW XRFKA DIMUZ AJCFX RTMOY QUUNK LDXDP AWZKJ
 NXIRT SHVEU LPZFU XDTOY NLOGR AMIBE KSWFZ SBUQB ZJYHN EZKUL
 AGPZE SRVXI MFQNW ODJTK METYW GRANB SDZIU QLXPL JOFAZ SKBEX
 URCMW QFLTI GNVZY JZHOD 05247 61389 NAUXY GMPDH LATKZ IEBQZ
 XPLQL REWIJ BT K

18 GPM RECEIVING PRACTICE

SERIES 4

18 GPM

RW2 DE CL4 NR3 -T- EWB -R- 171900Z -FM PX1 -TO 8CU GR72 BT
 WFZSJ TOURN XBZNG EQIBK CJDFR OSKBA ULRWN OMEPA LBIGB DHYCQ
 ZXWSF TJFOI WMXPU IRJKH CABGF VSFFZ NUSKA KVTGH NQHOB JEWZ
 AEDZX LNGHB WERIJ YPZUK XOZTN 58130 47692 DQPFN DLBHA OESJV
 ZXRWY MGIPZ FUNEK ZIWKT ZRHOF SJVLX AUPDU YNFQD VLMHW SUYPW
 JBPGY NQETC 72048 69361 AOWZP ETNCP RAXMV JSBLF UGYIO KZSQF
 BNGOE TCXIU QYRLW PVMHV ZKBWV TMZFA QBUIY KXPES 36981 40725
 JOLGY DVAMF UHSRP OQLKN GIECV WTCYJ SXWMC RDVBE KJUSZ NHLPA
 MEJEZ YIGUO BT K

17 GPM

1Z05 DE FB88 NR9 -Y- 262329R GR66 BT
 QITOX QFTFG ULXJK WNZSA OBYKV REPIM AHVDF WGUOS CXPZK IJVFZ
 07345 89216 HRENV ULOPV MFPIX WRBYG SLQPA HKENC ZJKUM QLZJV
 81296 HREND ULOPB MFTIX YRVYG SLQPA HKENK ZJMUP UTYWK ZJLVQ
 ERAHN ZOSDC 32897 16540 DXSIN QKVEY OWTXR ALHIR GDZJD MUFTG
 EUTVB HKDLN SPXRC QFKIZ NWAOM UWYVX HOVCF TJQMZ LRIER 57319
 FTENU 20468 EXCSZ NIOGV WMQUR FTDBL JATHU GRCPE EDSMN HFSKA
 OXIQL YCZVP GWHTL HMRBE ICFKD PIREM BT K

18 GPM RECEIVING PRACTICE

SERIES 4

16 GPM

1Z02 DE AL82 NR4 -T- FB84 -M- 011550R GR62 BT
SORXU JYANP 83515 CXPWY DRFQA LNKIB UVSHE OMJGC CEWUX KQAMB
PSZTB JUDNF OGIRL KARFX ZTGYP OBNZH UPVWL ESAIN 69720 40382
AQFGH TLYQB SOIBK EXPWN YBKZP LSERI UHXNZ QWFTB JAIDM 69752
LGSXC VYQTG AIEPF UJWNB OFNRH JDYXZ 48215 39760 NUPNE LHSBW
FQAKB GCTIX RZOVJ CTNGH UDZKV ISFKA OBPLR YXZWP HPDMA RKVNU
WJKSL 04369 OGVUL FEQZO BHRSB TKSCH UVMFH KSEMA UOCHY PMIDR
PEMAO BQSUB BT K

18 GPM RECEIVING PRACTICE

SERIES 5

16 GPM

BD6 DE 8QB NR8 -R- 282021R GR62 BT

THREE SEVEN TIMES NEVER STRIP STRAP PARTS SHAPE PHONE RIGHT

WRONG GROUP BLIND CHEST RULER STEAK QUIET SMITE SMOKE KNIFE

VERGE FLING BLADE SNAKE BASIC FIEND SEWER SLIMY FEWER STORM

STORE CADET TRAIN DRILL AGENT SPIES ERROR LISTS MAJOR RANGE

MINOR STATE RADIO PETTY SIGHT GOING MOTOR FIRST THIRD WHICH

ARMOR AGAIN UNTIL SIGNS SWORD SWAYS SENSE POWER WORLD UNITE

TWICE WOULD BT K

17 GPM

1X0 DE FB81 NR5 -0- 280409R GR66 BT

QUICK SHARP AVOID REACH EVERY EXERT FORCE WRIST THUMB SPACE

MEANS LEVER SWIMS SCREW SEINE ABOUT CLOSE SLANT SLIDE CLEAR

FORGE STARS METER MOUTH TAPES MATCH WORTH BRUSH OBESE BALMY

GAUDY RIGID MUSTY LIMIT GLIDE REFIT YOURS BEACH DETER WROTE

STOLE SCALD HENCE LINKS SNAKE PAINT GAINI OLIVE RELAY BIRCH

NYMPH BLOWN ENACT OPTIC TOTEM BLITZ TORCH CLOTH SLAVE LILAC

GEESE EMPTY CATER GIDDY NAVEL NEEDS BT K

18 GPM RECEIVING PRACTICE

SERIES 5

18 GPM

120 DE 5ZU6 NR1 -F-R- 261335R -FM AL8 -TO BC6 GR72 BT
OPERA WORSE XRAYS UNFIT PAPAL ARRAY OUNCE GAVEL SOUND VENUS
SPOUT PETAL VEERS SKIVE SWORD LABOR BOARD BORED WEARY DIRTY
YEARN GOULS CLEAR RUCHE SPICE LUCKY RAPID SLAKE SOLVE ROUSE
ROUND KEMPT SWIFT PETRY TRUNK WALTZ OUTER SHELF UPPER POLKA
STEEL STEAL LOOSE GAUNT HEAVY DECAY WASTE WAIST USUAL VAPOR
ISSUE FRUIT ROSIN WAIVE VENAL YIELD SALAD ELITE ROOMY STOLE
STAIR CHAIR STOOL TYPES SNIDE SWEAR THREE FEWER CADET STORM
PHONE RULER BT AR

18 GPM

J66 DE D2N NR18 -M- 231714R -FM 1X0 -TO FB81 -INFO 8QB GR72 BT
THERE MIDST NOVEL UNDER SWING WINGS BULGE JOINT BEACH ROUTE
CLOSE GATES THREE HOURS CORPS STAFF WHILE THROW PLANS YEARS
ETHEL REBEL AMONG WROTE ABOUT AFTER PLANE WORKS POINT MARCH
PLAIN QUOTE FORCE UNITY LOYAL SMITH DRAMA FIRED TROOP VOTED
GUARD MEDIC WHICH UNTIL OFFER CHECK STORE TOWNS WOUND SENSE
PRIDE EVERY SHARE CENTS AIDES TODAY LIVED BEING FALLS BIRTH
QUIET USUAL QUINT PARTY LEAST EVENT BLOWS UNITE SUNNY WORST
FIRST STATE BT K

18 GPM RECEIVING PRACTICE

SERIES 5

19 GPM

1206 DE AL8 NR27 -0- 151624R GR76 BT
READY HORSE WARTS JAMES DEATH GROUP MAGIC WORLD OTHER TRUCK
GREEK MILES STOCK FLOOD ALIKE ROOMS STEPS YOUNG GAMES ROOST
PAPER BROWN DROVE GLASS CLERK MONEY SEVEN STEAD WHOLE LEASE
EIGHT PRESS LIKES KNOWN POWER LIGHT SHORT BLOWN LEWIS RUMOR
NEVER DAMES SCORE WEEKS PLANS FLOAT GLOAT STUDY STUCK RAISE
EVILS HOMER NIGHT BASES FORCE SMOKE FIFTH METAL NINTH PITCH
PEPSI WATCH WHEEL WHITE DELTA ROGER ROMEO ALPHA BRAVO GREEN
ERUPT MILES BLOCK COLOR STICK FIELD BT K

18 GPM RECEIVING PRACTICE

SERIES 6

19 GPM

PS4 DE 9ND NR3 -M- 272315Z -FM PL5 -TO HK4 GR76 BT
 BWMFZ GVQMA FMACY EDPQG TKRWK UNISH OXVZL 68149 ADBPN VPIEZ
 XYJHU RDLSK WCGQM 25703 FKTON XQFMA OWXQA MIZSA YLFJP RUNLD
 WXBID SAHVG YEMZK OCPQA LCRWN KZVJT DSOEF IGYHX NUBQS 59703
 LJGOA YMZQP ENIBX DWFUH KVTRC HJDOF RAQSL TIZUW NYVTB KSHNC
 81624 QBEIK JFCDE SPOHA LWURN MPOEA BGLIV HCDYQ XФЗWS JFKWI
 OCJHD 54027 18639 AXNUY MPGPH LKSTV QJAFG VOHCF EITRM XEKPS
 81624 JGLOA XIWBJ DSLDG BUBLO TMGCH JWNUS WRMPH BGYZD RAFDA
 KFJHB 73159 UFPNG LZJQV 73405 OLGJY BT K

18 GPM

4SL DE XL6 NR1 -Y- 081145Z -FM DU8 -TO 4SN GR72 BT
 MTXWU BZMXU NVZTY FUHMW PJFLS HVESU RVSXI FTIWL OURTM JOXTI
 QCVAS XRWXY BTGJY NCODE 07245 HLPNA JDNIZ TYWUK VJDGE RIELA
 DSIMP XTWZY ARFKX EXJDX IEPAF ZOVRJ 43609 WOLFZ YJHXU ULNRV
 97053 SHNKZ YPEMV UVQNS LFJYP PIVEZ MIPDR JQSWL CTIGX YQTVG
 OISVG VLROI 35852 RCPVJ LHIAC JUMCT XCTUK ZUJKZ 68931 UIRSS
 ESJOV EWNJZ XWFGS OITUE GPBAZ WQHUK MINXR ZUKEL KEXSB EBQIC
 HYCDQ QHONV LBHSA LMHVW GYIUO XPEKS BDVRE GYOEK KEMHC XTWOR
 XCITU QETNZ BT K

18 GPM RECEIVING PRACTICE

SERIES 6

18 GPM

AN6 DE P2N NR21 -G-R- 272148Z -FM FV3 -TO P7X -INFO RA6 GR72 BT
VCOHF ATHJU YANJP YDNJF LYTKV GSCBX QAKUD OHCUY VEDRH ISMCH
GHIXL IZUTY AXRLK SEOVF RGFTV 86419 SENKA FIEBC VSHLW 97562
QFGAJ ORSUX PVLFD YVYUX DFIEI QSPAI XWMCV VUIYQ SBLJD MFQYD
QTFBN VDTKG VIGLV ATLVK OFHCG JYHCN WCKAS DLGLP PUQSV LCPQV
MEPOA LXIYR 76942 UPDAV PUBAD HXMRV MZFTA TCYWJ EPIBN RDIWG
XSIDS WJONA UMWQR CFKID QHMKD 48031 80467 UMPNE IRYKD XVZOL
UOUID ZVJKT JDDHF TCRKV MRZLW QBAXW NSIUM MJUPI 97630 WFTQB
GIPNC MGHLD BT K

17 GPM

CD4 DE OW6 NR7 -M- 041526Z -FM 4SN -TO 89L -INFO 8MD GR66 BT
97260 CUEWX MERHD IOGNV FKIQZ 65410 VYKOV IECGB RHDCN PNZEK
JVLSX 85130 NSQHZ LRWUN AUNXY DZISU VWFKA INUDX TONRY MERID
13869 SHVOA SDZBI OXPXN RAOZF OWZAP AVJZW QLFON NZSWA LVPOU
27839 PXRSC SESCZ EHTGL OGNLZ SAIEM HXNUZ 82145 BPLOR KSGTX
KRWTJ FTONK CPQOA WOFDH NIBEX EMZIM 57023 BPQEG HANDF SRQIA
BUCKZ SERLI TVWUL UHVSE XZVUP 04628 KDLHN OBSNB RENHB RXLGH
VMHPV 93651 IKTZW PZUYK ABCGF JDFCR BT K

18 GPM RECEIVING PRACTICE

SERIES 6

16 GPM

8PL DE AJ2 NR3 -Y- 211405Z GR62 BT

JACAJ DPXOU DJTOK CHOJD QIBEK RJLIH ERIWJ UNKFE 40478 YIRKL

VAKWF CFTGF 12986 RAHEN UTVEV EDNGU IQLOX NILKD DNCOA DKCUP

KNROH DZJOV EKQFO AMCFU CGQWM AHVSG MZQUP NXSID GRDYW METRI

BPJFL UHVSE ZQWPU RMXIN W GKAX DBPXG IXNUQ TYNOR DVESK JFCHA

DYOTX LRGON MDIEA DZWFK PVQSS JNHUC ZLUYK RISVX RWHQM DKPOH

OXTPL SRDVG QLASD GHIKT STUDZ SEPKX MITRU FVCOH GKFDE VLPKS

52407 EPYMW BT K

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END

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APPENDIX E

IMC SENDING PRACTICE EXERCISES

Follow the exercises as they appear in this manual. Do not start on another exercise until you feel certain that you can send each character in the preceding exercise correctly. The basic drills and exercises go from easy to more difficult and should be followed in this sequence to develop a good sending ability.

TM 459-101

BASIC EXERCISE #1 - CHARACTERS E, I, S, H, 5, T, M, O, Ø
SHEET SEEMS SITES MISTS MOTTO THEME 5ØØ55 TIMES TEEMS THESE
HOMES STEMS MOSES 5Ø55Ø MOIST HOSTS SHOTS EMITS SHIMS SHOOT
Ø5Ø55 MEETS MOOSE MITES HOSES TOMES MOTHS 555ØØ THOSE SHIES
TEETH HOOTS SHOES TOOTH Ø55Ø5 HOIST OMITS ITEMS TCOTS Ø505Ø
MOSES MISSED THE MOTH. HIS SHOE HIT THE HOSTESS.

THE MOTTO MISSES THE THEME. HIS THESIS IS 5ØØ SHEETS.

THE SHOTS HE SHOOTS MISS THE MOOSE, HIT THE HOSTS HOME SITE.

THE ITEMS HE MISSES I SEEM TO OMIT. THE HOE HIT HIS TEETH.

THE HOSTS MOIST SHOES SOMETIMES SEEM TO EMIT HOT MISTS.

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BASIC EXERCISE #2 - CHARACTERS A, R, L, W, J, P, 1
REAPS STEER PLATE TRIAL HORSE WEEPS Ø5151 POOLS WAITS JESTS
SOAPS TOPER POLAR 11Ø15 ALERT SOLAR LAPEL LASSO TAPIR JEWEL
Ø151Ø SHAPE PATER LISTS WALLS MATER ROWEL 51Ø15 LATER TOWEL
JOWLS HOWLS TAPER SOARS 1Ø15Ø LOOPS RESTS REELS TWIST APPLE

THE SLIM HEMP ROPE LASSO APPEARS APT TO SPLIT.

THE JESTER WALLOPS THE HORSE AS HE TROTS. THE HORSE WAS LAME.

HIS JAW SHOWS THE PALE PALLOR AS THE ARTIST SEES IT.

TWIST THAT REEL WHILE I WRAP THIS ROPE AT THE LAST LOOP.

A TAPIR WILL RESIST TO AWAIT THE SHOOTER.

9

TM 459-101

BASIC EXERCISE #3 - CHARACTERS U, F, V, 2, 3, 4

SEVER SPORT VAPOR SHORT 21051 TEPEE MOUSE SHAFT GRUFF HOUSE.
TRIBE 35125 STEAM WHEEL SPERM FEVER STEEL LIVER 42053 LIFTS
PEARS FAVOR FRUIT SAVOR VERSE 53412 SIEVE SPLIT STAFF STOVE
HURLS VOTES 54533 PEARL FURLS PETER TRAIL SHIFT FRAIL 45540

HIS PIPE HAD A SMELL LIKE THAT OF SHOE SOLES AFIRE.
THE RURAL HOME HAS LOTS OF FULL APPLE TREES THIS TIME.
THE GIVER OF THE LIVER SHOWED US HOW TO PREPARE IT TO EAT.
ALL WHEELS MUST MOVE FOR THE MOTIVE POWER OF THE AUTO.
WE MUST FIRST SEVER THE FLESH FROM THE OUTSIDE OF THE WHALE.

10

BASIC EXERCISE #4 - CHARACTERS N, D, B, X, 6, 8, 9

DROOP NINTH 35621 NASAL DINER EDITS EXERT ABATE DEBIT 20813
DETER BIPED EXILE BEAUX BREAD PLANT 09826 STINT THIRD BINDS
ADEPT SIXTH EXPEL 81305 BUXOM FIRST BURNT TOAST DRAPE BURST
12963 DANES FIFTH DONOR DUPED MIXED 88266 BLEND FIXED WAXEN

THE FIRST BURST OF FIRE EXPANDED THE BARREL OF THE RIFLE.
PAT STOOPED AS THE HAMMER SAILED ON OVER HIS BALDING HEAD.
WE MUST EXERT OUR FULL AND EARNEST EFFORTS IN ALL PRACTICE.
WE WERE TO EXPAND OUR PRESENT LINES AS THE NEED AROSE.
ALL OF THE DAMSELS WERE FAIR AND BUXOM BUT MOST WERE TIMID.

11

TM 459-102

BASIC EXERCISE #5 - CHARACTER G, Q, Z, K, C, Y, 7

QUART CRACK GRAIN LANKY QUICK 86327 HAUNT GROPE CROCK CRAZY
BISON CREEK CRANK 51074 KNOCK TEXTS GREEK STAGE JONAS STICK
66778 TODDY CODEZ QUIET INDEX YACHT GOOSE QUIRK 10345 GAZES
TODAY QUAIL TOUCH GRAZE CARRY 76531 QUEEN GRAVY GRIPE TOPAZ

SIXTY SIZZLING STEER STEAKS SAVORY AND SALTED TO SATISFY ALL.
THE VISITOR HAVING NEVER SEEN A BISON CALLED IT A MOOSE.
WE QUICKLY GRABBED THE GOOSE AND TWISTED ITS NECK CRAZILY.
THEY INSISTED THEY BLISTERED WHEN EXPOSED TO THE TORRID SUN.
THE MAVERICK JUMPED THE CREEK BUT MIRED KNEE DEEP IN THE OOZE.

12

PRACTICE ON LESSON ONE CHARACTERS

SAMWE NTOIM ISAMW ENTOA OTNEW IOTNE SWNTI IMEOT OSMAI TWENT
OSETM TIAOS NWEMA TSMEO NOSTI MAWES NOSME TIAWM OSMET IAWMO
SMETI OSMIA METWN TIAWE TNAWI SMOET EIWAN MOSTE MEAWI NOTSM
MEWOW WANTS SOMES SMIAT OEWSN MIATO OWNSM IATOE WNSMI OEWN
MIAEW TNIEM OTWIE TOAWI SINAW ASTNA MASNT WMOTS EWSMO ENEOM

MEN WET SIN NET SON NEW TEN SOW TAN OAT TIE WIN MET WAS SAT NOW

WAIT TIME WEST TINT EAST SNOW MASS MEAT TOSS SOME WANT MOAT

I SAW TEN STONE MASTS.

SAM SWINT WANTS SOME NEW SETS.

I WANT TO TOSS A SNOW MAN ONE TIME.

13

TM 459-103

PRACTICE ON LESSON TWO CHARACTERS

WBECT GDXIO NZMØS QAYWB TCEBW GCBET TOGEC TGIDO DIOXG ODNXI
DINZX MXZIN XZØMN SMNOZ ØSZQM AMSØQ YSØAQ AWSQY QAWBY EYABW
CWYEB ZNXID AQSØM DOGTC MZNXI CWQMX EYSZI BZØND WQMXO YSZIG
TDNØA COXMØ EGIZS BDTNØ WCOXM OGTDI GTCDO XIZND MZNSØ AQWSY
AWEBY SQYAØ ZNMIX DTGIO NZYBC GDSEA TIIXN SAZØX YZING TØSGA

CAST GAME DINE CENT IDEA MANY BOAT DOME ITEM DEAD SNOB STAG
BINØ CITY NICE COZY STAY TOYS DICE GATE ADAM BOYS GENT GOAT
NOISE YEAST WASTE MEANT TEASE BEAST TOXIC BOAST TODAY SENSE
TEN COZY TOTS TEASED NINE TINY BABES.

DAN, SAM, MAGGIE AND BOB DANCED TODAY.

SIX NICE NEW BOATS WAITED TWO DAYS TOO MANY.

14

PRACTICE

APEOD CHRDL XUNZR JRRFL RKDCT YDDNX NFWYK SCPLA ALPRO WYKCU
DLPIU UHQJD MKCPR HIZPN ASKBI UTVJO PXIMC COGHS BNNXA MENCY
KANOF DLFUJ FTUIK EJRDC WBUBK LEMGI HGIAY ZVCHC HDSQF NATNI
BCMPY TNRDV APEIL CUODM GTLHN OAOAL PNTRX ERTNB PTRNB METND
DSFNO PFGJL FRTBL HLLRA BFPLB GPVAR HISAP JAWRL PKNRY ONXCT

IMMEDIATE DELIVERY OF RADIO EQUIPMENT IS NECESSARY AT THIS TIME.

CONCENTRATED PRACTICE WILL MATERIALLY AFFECT PROFICIENCY.

THE RADIO OPERATOR IS SOMETIMES RESPONSIBLE FOR MANY LIVES.

CHECK YOUR KEY ADJUSTMENT TO INSURE MAXIMUM EFFICIENCY.

BEARDED AND GRIZZLED PROSPECTORS GATHERED TO STAKE THEIR CLAIMS.

15

TM 459-104

PRACTICE

XWSRT WHVHT WCDOY PITYV FMGJU JNTIR PQGTC VFDWS APXGK YTICB
HZZWC IWQQH EKIDS QKTMD LSOIE LAZMF PJNBX GWUMY QPOPG VMNBU
NORAB BETHG BYPOF MAUVD WNKKU LHBXJ SUMMW VNUXD SHSIB PWQAZ
INTIN PEXKM VGUPN MGEQA HRAUT MHTDZ SFUNY HYNEN FIORV MNEVT
PZXDQ ZFSYT MWTGU BVINT DGBPS NDTFG PJQAH CMFDX APHCV MSTSJ

THE COMPOSITION OF THE SYSTEM EXISTED IN THE ORIGINAL STATE.
RADIO COMMUNICATIONS REQUIRE WELL TRAINED OPERATORS.
MANUAL DEXTERITY AND MENTAL COORDINATION ARE SENDING REQUISITES.
THE CONVOY PASSED THE INSPECTION POINT AT THE APPOINTED TIME.
SEVENTY BUSY BEES BUZZED ABOUT THE BUZZARDS ROOST IN THE TREE.

16

PRACTICE

SVNRT QFLPZ CWYFS RBLMO BQMXJ BZSYK SLZWA CQGXV YNIHW VNPFO
TNXJ EKLMG BVDHM YUPOK FUJAE IUJRH GMUKO ZTAUO JVIKP RWYTL
GSWCR VFY CZ QIYUM HUYAK RPGKY QKQOR WEGCE DIZGO EDXRE PLOFH
TWMV LPEZX BLOVR APKDE USHBG XSUBJ MCISL JOTIF UOCFA GNHMT
EYJTK PLUPK RVKPX DXGRO STAJT JSEAF GRYZT ZYSKF EPXWL WVCPT

THE TRAINING YOU RECEIVE IN THIS SCHOOL WILL BE AN ASSET LATER.
YOUR TRAINING CAN BE ADAPTED TO MANY SIMILAR CIVILIAN OCCUPATIONS.
THE QUIZZES CONSISTED OF MANY DIAGRAMS AND RELATED SCHEMATICS.
CONTACT WAS SPEEDILY ESTABLISHED BETWEEN UNITS BY THE RADIO OPERATORS.
YOUR FOREARM SHOULD BE MOVING DOWNWARD FOR EACH ELEMENT OF THE CHARACTER.

17

TM 459-105

PRACTICE

CJQKD XQMZF RTGJP PLSHL GLIKR QYVCT CUACO OBRZQ KWTHP BUVSF
HLEQR ZLKVC KELEA JQHZI FVEBP NKXMQ VAYDW EDPFR WHMKH YKQPS
NSMDI VFLWA ZJZTF PWLZW BRFZT HEWGJ TIBUK GWDLA SKROP KAZFD
MEPHW NCJLR DACYS RXOSF CLQBL CPOIR RXSFV HGDJX PDKMB QARCR
PLHWA VJBHF KDVKA OKPSR ZSPLS NDNSU HSATA JFLHB XAFRV LPHRE

IT WAS NOTED THAT THE BLOATERS FLOATED WHEN DROPPED INTO THE BUCKET.
MANY BASS WERE SEEN LEAPING FROM THE WATER FOR EARLY FLIES.
ALL MEMBERS OF THE TANK CREW PRAISED THE ABILITY OF THE RADIO OPERATOR.
HIS WAS THE JOB TO GET A MESSAGE THROUGH FOR BADILY NEEDED SUPPLIES.
A COMMUNICATIONS CENTER CAN BE COMPARED TO A TELEPHONE EXCHANGE.

18

PRACTICE

Ø2176 1629Ø 89713 38967 238Ø9 2371Ø 38926 86721 Ø9167 938Ø2
62967 23107 89298 16182 ØØ182 19327 13ØØ8 97692 8Ø662 71769
3Ø791 Ø781Ø 69382 83622 Ø9128 6Ø373 97Ø16 32728 19689 8276Ø
6Ø373 97Ø16 32728 13737 Ø1699 48672 29Ø61 4Ø253 84937 5619Ø
1Ø373 2Ø394 3Ø571 4Ø612 5Ø231 49466 99221 32321 43345 32421

THE COMPANY REQUESTED 25 RIFLES TO BE SENT FORWARD BY 14ØØ HOURS.
THE PRESENT STRENGTH IS 85 ENLISTED MEN AND 4 OFFICERS.
THE CLUB MEMBERSHIP SHOWED 532 MEN, 164 WOMEN, AND 223 CHILDREN.
HIS DOCTOR PRESCRIBED WINE, SO HE ORDERED 1Ø BARRELS OF EACH COLOR.
HE HAD 5 NIECES, 8 NEPHEWS, 9 BROTHERS, AND 4 SISTERS at LAST COUNT.

19

TM 459-106

PRACTICE

84625 92847 86424 08247 10224 86736 75624 90163 74628 48297
 28934 FRBLP 32862 JWFRA 70465 KLOIN 26913 HNVJX 69207 NVBER
 MWAFP 91862 FOGLEQ 96820 SUWMW 16246 FORIV 98967 LSPFR 92380
 92801 JVKXC 71968 LFSNE 81749 MLIPO 49251 CVBPO 98793 LFGDZ
 81046 71213 73629 98090/ 61923 91325 74829 92122 74657 93645

A HOLE WAS DUG 25 FEET BY 6 FEET TO MAKE SURE THAT HE STAYED DOWN.
 THE TRUCK HAD 14 WHEELS AND TRAVELED AT 70 MILES PER HOUR.
 AT 2300 HOURS YOU WILL BE RELIEVED AND YOU CAN SLEEP UNTIL 0530 HOURS.
 THIS SCHOOL IS SITUATED 12 MILES FROM AUGUSTA AND 90 FROM COLUMBIA.
 A YARD CONTAINS 3 FEET AND A FOOT CONTAINS 12 INCHES. CHECK CONTACTS.

20

PRACTICE

MJWFN FOGQL JBEXH VGERY NDNUN QSPGI DTAST OTPSR KSHUN LKGSF
 CSTXT UAMHW KLZCB WISRI PUTQJ IODML YUVBO OAKCK BHBFBZ QHADY
 HADNF LFMWP MCBYW OGDUX TGJFA GEPJW UITXM TZEZB KXIAJ RYLNR
 RKVVS ITOBJ SYGCC EKNMW FJIDC HPCVE SQAIO PUNAO QOGKT QSWHU
 QXLIZ CHYXG FYHBM PGPXD PLMZY LKKRV HBSOE AHAEB YLNZU STVXF

GOOD SENDING CAN BE ACCOMPLISHED THROUGH PRACTICE AND INTEREST.
 ONE MUST PRACTICE CONSTANTLY TO IMPROVE WHETHER SENDING OR GOLFING.
 SEVEN DODDERING CODGERS SITTING AT A BURLESQUE WITH BALD PATES SHINING.
 ALGERNON TIZZY TEETERED CRAZILY AS HE TWISTED DIZZILY AROUND.
 THEY QUICKLY GRUNTED LIKE HOGS AT A TROUGH WHEN WE MENTIONED FOOD.

21

TM 459-107

EXAMPLE OF A BASIC SENDING TEST CARD

JPLZE CVGQU MBNAO LWSRI PMCNF CONXS HJKRS TQIFC LKOPR ADFSG
LGFHW NCBZQ PABLT KVJFX 38634 NRYCM PKLTR JZSWE BCGSA BLPAR

1. Correct all errors made during your transmission.
2. Allow the proper spacing intervals between your characters and groups.
3. You will be required to copy back your own tape; send slowly and accurately and you should have no difficulty.

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METHOD OF CORRECTING ERRORS

1. During your basic sending test you may make an error in sending which must be corrected.
2. The following procedure will be used to correct all errors made during any transmission. Note example below:

KRGBV PLKED QZXSW RGSMI PJAXC FKH (EEEEEEEE) PJAXC FKS RD
1 2 3 4 5 6 5 6

3. While sending group #6 you send "H" instead of "S". You would then send a series of 8E's (EEEEEEEE), then repeat group #5, send group #6 correctly, and continue with your transmission.
4. When copying back your tape, the transmission should read as shown below:

KRGBV PLKED QZXSW RGSMI PJAXC FKH FKS RD

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TM 459-108

PRACTICE

84625 92847 84624 08247 10224 86736 75624 75614 04836 90163
 43759 02847 83748 01837 54728 81622 54756 88766 99254 33421
 00778 88564 55332 11232 66554 67566 33422 88665 77445 44433
 33221 22335 55664 77556 44332 97719 43445 45454 43432 67566
 75632 21123 10324 26547 27534 38561 62839 81093 53840 71980
 68388 30331 31000 76548 28464 43655 66751 10396 41870 47632
 03759 17322 47755 23144 55566 77554 55544 87224 56375 86754
 98508 35476 59780 41656 78560 46588 77654 98074 23754 81233
 85674 09576 25437 95732 33222 11332 55446 77645 99876 04327
 23485 72643 86574 91426 55344 76853 94322 64578 46832 23422

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PRACTICE

02176 16290 89713 38697 23809 23810 38926 86721 09167 23809
 62967 23107 89398 16182 00182 19327 13008 97692 80662 71769
 30791 07810 69382 83622 01928 60373 97016 32728 19689 82760
 60373 97016 32728 13736 01699 48672 29061 40253 84937 56190
 10373 20394 30571 40612 50231 49466 99221 32321 43345 14253
 01927 98798 87678 76576 54543 67584 09121 23984 45362 01856
 01928 58492 46507 23456 39521 78543 54096 09664 44655 73322
 67744 31812 31845 04387 63970 98235 76576 23412 22113 55446
 84957 37562 29496 19360 75926 42869 81945 96625 02658 73628
 84629 01835 84629 36154 75538 84623 72957 93638 83512 01836

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PRACTICE

LBDFZ VRFYU RNJCA MHOWB UPYKQ CKZGQ YZKFV FVTKB DYDHT OIJJC
 UAICX FSVCL MPIHL KPCOT RKSNN TXNFS XFNZX PTXUL BVNWZ XHMZX
 PNORI LSEMJ UAUVW IDBDB RNCIY MJSRW RNSET LIBNQ DJFZI FIEND
 PLHDM TCJXY GHQPF EDIGM TSJFK DTRLR KZGXP ONDYL CPHXZ FOZEI
 ZSCFY BKHFA BEBCZ AIOUI JLYDE MWTGY OAKXY VBINT DGBPS SQMQZ
 JWDJD PJNXP VOLZE QWFNY GEADT BFUNI OHEYA CILTG ELXKV ZHBNP
 GMONV XCRBU VCJSJ UOIMC NORAR POSCE WNMDH CVPHV QMCSZ KLGKL
 MDJAI MWCLZ JSHBL GWPYF HTPXV YIJRO WYKOU CUOXW IGHAR YTNKP
 WUSPR PKMBS IZJRI ZNBRF QVWVM AKLRT MYOEB KHQZR UELYZ XGDRV
 WIOYN BYVPQ RFJDV DBNFO KOPGU ZGYXT UZCBO FUXMK GUZLZ QVJXE

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PRACTICE

GNIAS BERUJ VTCZW UKGOY FSANO 22341 HCKEV WULDJ ZCMXK RPIHN
 12345 CQIOK DWPYT BZHDV MNLYC OWMZF HAQLJ YSPTB ARMDX BSGQU
 TYLMJ AXXNH 09451 HEFPF KJERP QEVMK BALOP HSKMG CJGDK EDGNX
 DYCAB FYYTU BQGUC PVZRQ SSWUR 52134 THLWC MBNZS ARVND WILLO
 FYYTU BQGUC GTFLE ZIJTX 31047 TQKQR SZEHC YWAYI BETRK VIHCE
 JWJML PWFSG ZEFVD 34510 BUIBD ZRNFA DAHCC GMI PN GKJNX YROON
 MHCPD UTDLA BMLYX HAFBF CPIYZ SQPKJ LKVUO USOQQ TXZWR 29301
 KCKNS QAVOO YTHQO IWEYL WHBWX KCYUE 20345 ZMQVA XGCHU SNSFC
 TNIZG ICXFD VYFJR UAJUW BDTKP LPXOP ZMAEL IJDMR 34561 YGFMN
 UAHRT TEQFT FWDQV NFNRE EBZPT NUWBL CXETF IWWEK JQTUQ KQJDM

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TM 459-110

ADVANCED DRILLS AND EXERCISES

This part of the manual is designed to help overcome various difficulties that you might have in your hand sending and to prepare you for higher speeds.

Practice on the "dit" characters and numerals found on the first several pages should help you to further develop the smooth wrist movement and consistent "dit" formation so necessary to good, rhythmic characters.

The drills on "dah" characters and numerals are calculated to assist you in making "dahs" of equal length and consistent spacing, another requisite of rhythmic characters.

The random code groups and clear text will help you to combine the different types of characters, and to perfect character, group, and word spacing.

Your instructor will assign the type of practice needed to help you overcome your particular difficulties.

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PRACTICE ON DIT CHARACTERS

I S H B D U V

SHDBU IUISV BVDIU VHBIU DSIUV HDIBU SVBID UUVDH SDHUB VUIBV
HDHSD BVUSI DBHVS SHHIU VVDBI DBUIB UDDHI HSBUV SBDDU IUVBS
HIUHS BVDBI HUIDS VIDUV BHDVI SUHBD UVIHB UDUBI SHUBD HIVDU
IHSUB DSIVU SUHDB DIHBS VSVHD BUSIH DUVIS BDHIV SBHDI SUHBV
DIBDS HUBHI VDIHU SBVID BHDSU IVSBD UIHBS DVUBS HUDVI SDBVU
SBHUD ISBHD VIHSB DHSUI UDBSV BBUHD SDLEM DVSHH ISVBU DUIBD
HUSID VHISV DSHBI SIVHD UIDBS UHIVH DSIHU VDIUV BDUHI SBDHV
DBHIS UVVSB DUHIV BUDSH IDBIU VBSDU BSHIU BHUDS VUSDV SHIBD
UDSIU HIVSD BHDIS UUIVB UBHID HBUSV IDUBD SIUVB ISDHI HBDIS
BHSSD VHVUS ISHSD BHBDS SIVUI HVDUI HVBID SBDUB UBVIS VBHDI

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TM 459-III

PRACTICE ON DIT CHARACTERS

I S H B D U V

B.JUDS ISVHB VBJSI SIVDB BVDUI HBUVU DSUHV UBHIB SVUDH UDHUV
 BUSVD VSHSD UBDIV DVBHS UVHSI IDSIH VHSIH SBDUB IHVUD SISHB
 BHIBV DBHVI DVHHD USVIU SIBUV BUSHI IVUHV DUISH VSUIS SHSBD
 VIHUD BVHSD UHUSV BVIHD UDUVI HSVDH VUBHI DUBHI UBHIV HBDIS
 DHVUS VDUBD UDHIV VISHB HUDVI SHVID UIUBV HISUD BVHIB UIDBH
 ISDHI VBISV ISVDB HBDUS UVIBH SBHDI HBVHS IUBVD BVDSI DVUHI
 VISHV SUDBH SSVIB USHVH IUHBV BDISB UDDBV SHUID DBVHI IDUVS
 VUDUB BVSUO USVUD DHSBB HBSDB HSIVD VISHB HDIUV SHIVD HUUSH
 BVHDS IBVUS DBVIU DVDBS IHVDS SIHUIH BBVID HBDVS IUVDS IHBVU
 UUDHI VHVBS ISVDB BHSIU VUVSH BBHSI UVHIH BDUBV UIVSH IUDSV

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PRACTICE ON DAH CHARACTERS

C Y X Q F L Z K G P J

CLFXP KGZXY LGXJC JXCXY FXJZY GFYKG XLFGX LZGGK FCLGP YJXGZ
 CPYCK GLJCK LKPJP KFXYJ FGJZC ZLFYJ YKXJX QXCPF LXJLQ FYCPL
 XJQYF FQLJG CPYJP GYJCK ZQCYL FZFGL PCPZJ GKJPK CPCJG LXQJZ
 CYGJZ YJXGF LGXJL GXJLX YFCJX CKPKG FJZGK YKJGZ GJPCX XYFYF
 CQLFQ GLJLF GKJYX QYJXF FZGLJ CGKPJ XJGYC YGFFL ZGZJP JKKCJ
 PYCLG XFZJK YCLZG CPYXJ QJFLG XJLFC YCZGK KKZPZ FQJQX LXYGC
 PYXJY YJFXZ GYYPF JZGCP KGJCX GGJKP JCYXQ FJLXY LFLJZ JLZKG
 LPPKL JQGKP YCXXY JJCXF PJGZF QLCTJ XJYPK GZLJG LLFCP JGFKG
 JPCYP FZLJG CQXYF LFGLX XKJXJ CYQLJ FLJFZ YXZGJ KGPCR PJLFG
 XYCGL GZJKP JKYXC CGCLF CGXYK JZLJK PPCYJ XLQFX JQFFC ZJCJL

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PRACTICE ON SHORT CHARACTERS

A E M N O R T W

EANMO RTAWE MNRWO TENAM WROTA NREOM AMEWN TEMOA ANRWT OMENR
 WTAME RONTW AEMNO RTWAE NAMEM ONTRW MANER TOAEW MNROT EMWAO
 NRTWO TRWAM ENORT WAEMN ROTAW MORNE TAWMN OETRW RTAOE ANMRT
 OWAMN TREOW AMNOR ETTNA WMWEO RAEME MNNAO WAEMR RTNOW TINNAE
 MORTW ARTME WOEMA NMAAO ERWTE NMROW AORRT MNENA WOMTW TWOER
 MTMNM AEWTO RTMEO NTRRO MTRWA TWOME MNOTA EROAR WMETO NRRTN
 MTWON ROMWT WAEOT NRWMA EOARR WNWRA TRWAE RAWMO NOMTW WENMO
 NMMNO RMROW TWWOE AEANM NEMTA EANRN WENOW NETNR REMAT AEMNR
 ORAOE TORWA ORNEW NTWTW OWRAM RTOME AOOTM WAERT WNLAM EOAAM
 ENTMN RENTM ROAEO DTNWE RMNNT AEMNW WATER AAWOR AMONE ONENA

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PRACTICE ON SHORT CHARACTERS

A E M N O R T W

MEWTR OTMAE EARON MAEWN EAMRO TANWE RNEW R OMWEN WTRON RERTW
 TORWR WTOOT MNOTA WAEYOY MEMAO RTAWE NEMOR TWMEA NAORA WETAN
 AWORM EONMW NANTW TNEOM MWEAW ENMRR ONAMT RNTOM AOMTE ARMAW
 WROTR NEWAT ROAET TOMNW TROTN WOOTE AWOWR NTAAE WTORN RMNNE
 AERWM RMWNM MNORT WAMOR TWATW ANERT OAWNE TAEMA RTAWT EWORD
 MNANT ERONM AMONO NRMEN NMOMO WTROE ATONE AWMAE MNWTR EATRO
 RNEMT RTAEN MMWTR ONAWR TOMAE ATEME RWOWO NOROA TAWTN TONME
 ROWAM EMAAW ROTRE WATRA NENAW MNORW OWWTE NORTN TWAET MEATO
 MATWT EMNWN ORMEA MNRTO WERMA TRNRN MENEW ORNME MOOAW AEMRT
 WTROE AWONA ENMAE NRTNM OMOAW EMWRT ATONO RNWAE ORWAO RTNME

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TM 459-113

PRACTICE ON DIT NUMERALALS

3 4 5 6 7

35647 65734 37356 45346 73564 65437 54643 37653 74546 46437
 57346 57434 57563 74543 76676 73654 75465 34665 45665 76465
 37657 75657 34743 56434 64546 73643 75737 65564 37437 63476
 37534 44375 77345 54356 74643 73547 67345 63576 46347 57356
 37435 64337 56457 67436 75463 53475 36475 63377 56364 57463
 57563 74537 46537 64573 45366 55743 34764 36753 47365 54763
 67554 36743 64573 45376 73654 53376 64354 37657 35473 34357
 64365 75374 46365 34576 43457 76563 37476 53736 43636 75546
 67354 76375 45463 73765 45364 34567 73543 64375 73466 55374

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PRACTICE ON DIT CHARACTERS AND NUMERALALS

I S H B D U V 3 4 5 6 7

14S5B 6B5HS 316B7 73R14 5HS6B 7DB6H 51S34 U3V4V 314SH 6VH7B
 5V35H 1B35B D43U6 B5HVU 3S576 73V6H 51V64 UND4V 5S431 B3V5U
 4U6B7 5H4V3 14U6H S1513 B6D7H 13S4B V6V34 5U4V5 3S7HV 4UV6V
 3H5V7 147D6 4H5VU S316B 51D3V 5SB7B 3D5V4 H61U7 H54V6 13V74
 V4H5H 16B3V D3754 1U63B 7UV31 7456H BS1U4 53674 H5S41 BVD3D
 4U5VU DH4SB 43163 65HB1 3SHB5 D4V37 45VHB 65UD7 3V1S4 47B6H
 6BDUV 57613 45V3U 541SV SH537 63DBH 74UV4 U513H S5H71 BVDUB
 4V31S H5B6D D5H13 7UV31 31SV5 65HH6 B73V7 45UU1 54SHB H67D4
 UV4B3 5V376 SV13D 7476D H1S4V 56BBV S36D7 D7UV3 IV434 S5H6B
 S6HVD B73U1 DV3U4 5S4H1 657V7 B34B3 D45V5 UDS7D 1564H VB43S

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PRACTICE ON DAH NUMERALS

1 2 8 9 0

89018 22801 29028 91298 00182 91208 01892 09182 82912 90128
 18080 90902 10928 89012 89101 92011 89218 12018 08920 99821
 80291 09028 12191 98028 12198 98219 82808 10901 92910 21810
 19228 01298 22908 11091 29808 10912 20981 90202 80912 82298
 09280 11819 10889 18021 90810 28290 12928 22098 18992 01812
 90981 18088 28002 98081 19019 90202 02111 29189 12802 90188
 12902 12991 91019 19290 19281 28189 89091 12200 99011 90280
 21182 21900 12189 89089 18020 21018 98891 12092 10290 02182
 28821 80919 02929 12009 92901 98218 11289 01281 18901 99012
 12880 02118 20189 81289 01202 89081 90212 89080 91812 01920

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PRACTICE ON DAH CHARACTERS AND NUMERALS

C Y X Q F L Z G K P J 1 2 8 9 0

G1JYX 82Q9J FQ9XJ 0LJ1Z Y2X1Q J91C0 CF012 ZLL2G 2J8GK 82YXJ
 C0Z92 L18KG JKK9P 9P0C1 PJC0C 0P912 XYJ22 YJ1Q9 1C02Q J98XF
 X8Q91 8JF0L LF12G L0F9Z 0JL1Z Z1J8G 1GZJG 2881C Y2XJ1 CQ9XJ
 Q8Y18 F0LJF Z2F18 G28ZJ K9PG1 P0JCX CYJ12 QJ8F0 28X0L 9ZJZ9
 PC18J FL121 8FG18 Z2GJL 8PGJY 2C0YZ 0F9K8 8XJ91 Y0P9G 12X8K
 8J21Q 10FL9 2J0Y1 C2XJ2 Y8Y90 L18Q8 C0LFQ 8Y1QJ 19KJ1 90P2X
 2Q1GJ 8GZ1L FZ10L QN8FX 8J8Z2 L91XJ 21JFC FCC19 ZC22G 20J0J
 C2Y9J 8Y1CQ X1L2F 9LF1J G2KP9 QC0X1 8FY2J L8102 Y0ZG1 P8C09
 0XYJX F0L1Z K8J9G 2C81X Q29F0 LJZ2G 8K9P0 C1Y2X 8FQ90 Z1J2G
 Y18C1 X8J9F 0L1Z2 8KP9G C01Y2 GX89F 1LZ02 G8YC1 JXLQ9 1ZG82

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TM 459-115

SENDING PRACTICE

YLTSG FDMVW RKWSO GHCGB UMPUJ YDAFT ZPCJA NESYH XQZKB OGBWQ
 UOKEI WFSAR DMULV NHIVT MCLDR XIGYE BPVTF AKSZO YRLYL NZWHC
 DJQVX QHWPO WUCIA EBNGM UJSMF GDKRP XPAIL EJUZR XOZCG BHNSW
 RYVLF BEGQI VSTXM JHFTO QKWBA DMUPC NXEZT OIMYL ADGMR WOXYR
 HCQKV ULWFJ CANTZ QUPJI HKFNS VBGDP SBGQZ PEANV ZIJPW CHOYU
 SWOKI DJACQ RYULT XHEGP SXMVI MRFBD MPBIL ASWNZ QHYME VGOYK
 BHCOU DRGIT XSJEF NJWCP DPXZT UQMLK FBNRC AZQIF BOVYM WSLHD
 KTYMZ EOACW PXRGS JHFEQ AIUVN URVGB DJKLS PDGYQ ZUIDO MJWSZ
 AJFPG UFBEL NQVXV WRMKL IKHCB RCHNT OTYXP AEOZT PNKJV BIOEY
 PLDZR TGAJH DMSXW PIFCN RKSXY FMECQ URLPN JKXVG AHBOE BSZJI

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SENDING PRACTICE

EGNVY LFAUX QMWHD YPKIV WGMSE TBUAK LQRHC ODMTC RJZFX PELVZ
 WGSMY AHODT CKVMX ZQIBJ RXOYE FILMKI GCQUN WHDRB SAUPT PJFZA
 GOUYL CJHRW UPTYM FAHDM QVIOQ SNXVI WEBGD NRSKT FKELP JCBNI
 ZRLGC AFJPV ZUNYI EFMTW YOHCO SQJDW RXKSK GBEQA UNBIM HTXTV
 ZPERN WMDEU YHSLZ BFOAJ XTPRK GECMY ICQVJ FOZWR KUXDA HFGNS
 BKEMU WQORJ ICTHY SZLDV PXAGT LHDQL DXUFB MZIPE AKTJW VYOSR
 MGLCS DOIZQ YFVBC TNJGE XWRZI PULOJ FBKAE TNWNX LGGHC DKPOH
 VRUSU YIAZY VGKNP EURQH BLSXJ FMTDW OCYIA ELPUG DJQWT ZOIVR
 SXLGY MHNFA EBKCT UOZFE JCHXT YVQUL MGASY NZRKE KIPUX WPOKI
 WSVMR QFCAE BJODF BZTUJ IAMCQ YRWID HANWV PLFGK BNLTR DGLXT

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TM 459-116

SENDING PRACTICE

58021 AFKQV SKWNP HKPUX ZRMFA IQSWR LDCET ZUTLI EBDUY XFTON
 NSPHI BEINN XUYZS HFCBG JLQVZ BAHJO TUYUQ JGFKG 95146 MKRWX
 VHDAE JIKHL QWVMP TBFHA VYWRN IFINS WYUKP KDACO RVHCL AFPTY
 XWZUN MSILR UYAGB JSWVN KLJGH EDBAE CBMPZ YBXNQ TPRSM HGEHL
 PUTOF BELOQ OBDGK KICJQ OSWXJ IGFEU 78463 RMTXC WVMNN OLGDC
 CDKOR VYGCD AONPS OHFMP SVXZS JPIPH JPKTR OMQFA DEHIV DFAJS
 WZVLC XVTML GINUU HEJKO RLAKS WYUKI HINTR RWXUG BBGEC 05916
 NJLQO UFEBG QCACG NPWOZ WTPZT LKDAC CXYXQ MFNYE IGVYM QKZBS
 TUOJR NDLAH FCWNI GRWYU TCJAP XHYEP NXJVQ ROPGF DATXU LSNQL
 73640 MHISW OYJHK IFGAN QSQUY ZHBED GFENT WRPLM SVWZK FIADP

40

SENDING PRACTICE

54692 AJOUQ YWEHM PFJMP TWZSR HNIUO YUQDB JKHFS VXTWR TNQKH
 BQKQU SPLHF LOQTZ WUTTV 06381 DEMNL IYFCV ANWHI EKMJC GILMO
 CBNRL ZYVUS OPRLI DEEAD BGRYS ZDHIJ OQUZX VXCXF GBBFM SWMIF
 DAROP NLARW YUBFH NQTYW ZVJXK RVZFD HSUNK 86932 GBLNY LJHEC
 GIDPT UTRWQ MPROL 36709 NOGTT WZXAE HLMRS VJGCJ PAQBC DIHAS
 SXOZV VEGIJ KNSWU ZXGOT YZQPK MLABC 69328 JOSVZ UFADP QSNIH
 UWKKH FJNMV SGIQE COPUN JGDFD QTOTY ROPYD FHIBL NHWYY 17832
 KHBWX TRGFB 37805 CKJLN IVXZP SPRRV WBAVZ XYZUA JKLLC DATXM
 ECCMU QRNAB EEJNR SMNHE FGHLU VTTIL 39072 OKFCT WXAPQ JICQS
 UYZXB RAAFI LNOGV WPSWY 57793 TUOGC DHKDQ DRVYM BXAKS VZJGF

41

TM 459-117

SENDING PRACTICE

DETPN GAUPT GZRGF ATJMU KZGQJ OPUMW DPAGD WZFST WNLKP OADTV
 OIGXY RQLJH ELMRS TUZXS POLKJ LJFES CBBGO ZYWXN HDBCD BIPQY
 XZWKH HQVYV TFACF AHILS RUINC RNMKJ NDDCE NRVBR QZXYN UXMKT
 AOWMG KRTUW TQOJA FETZX NLDAN BIPQG FUVHW SLMJN KHUZY RLNMK
 IGECG QPOQV XOACV JHSRY XZVTR QTUDC ABAEG IGIKO PPNMR ZNSID
 EFUZY WLOPU CATRW PHLJH FJSUY AWEFE CLAYR QSNLA OVTDZ ALPLJ
 GESYU VWSJI HIGBN XBFGB AGPDZ XTQOP JKHGF XRPNL MIHAZ BDCLD
 ABJIJ HSYED CQZVS SNMAC IKDCN LIGFZ VUSOT ZUPOI HGEBN OUVOZ
 YWVES LKFEM REDNT MZECA ILOTO MLUYT SPNKJ HGBAT MWXJF AKOSW
 MKYZX YRE IO GEBEF EQUWY TPMJH IFGAV UZPHD SBSUV QQNJF EPXGC

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SENDING PRACTICE

EZKPY UCBJO TXIMS WBHNR VAEIN SWZBR MHDCG LQUYD GLQVZ FJMOR
 TYXTA BEIKN SWXUP HKOPB CFJAG EIMQU YDHLP TZBFJ NRVZE IMQVZ
 AFJNR WCGKO SQYXB DKCOS UTBLH AEHLP TXZCG HMQUY BDIKO SUWZD
 FIMRV BGJNC EJNIQW XZPFK RVYSO TLAFK QVZDI NPXBE JOUVY CHMSX
 ACFKP WZGLQ SHMRB DILTX GEJNO RUWPA EIMQV ZBFJN RWCGK OSXBD
 KHNPT VWXYZ UDFJL PRUTQ MSLCH EIGAG LQVYU PKGBH MRWXT OJECI
 NSXWS NIDDJ OTXVR MHCEF KRPUZ ZQLGA BADHL PTXYV SPMIK EBBEI
 MQUZX ROLHD ACFJN RVYWU QNJKG CFGOS WAFKP VZUOG EFGLO WYTNI
 DACHM RXXSP MHCED IGJOS NTYUZ WDRKL QAFCA ILOSV XBDBC GKMRX
 IOTWX FDJNQ UXWUS QLEHG MPRTZ PNHZE UXAEI MQVZW RNFJB BFJNR

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TM 459-118

SENDING PRACTICE

WQNHG CPORS IEHTN ZUGMV FABVX WTLA HSFIE BFGPQ ROXYZ YMJJJ
 USOSW DJWZG INELF HKTOM RQYWI JLMNP ARSZE BCDHU AFBHP VVCKE
 XDBCE FHILR USNAW BAUER PQVYX MACDU YZKLJ GFNOP WVXZT TSQOJ
 CMAEO SIMAC RANNA GHIRS UYXWR TQPOL KJEDB JMXUL KFDPQ VYXVZ
 HBZWG IESMC RANNB OPQTU XHACF JLMKY XLHEF GQUVW ZJKOP STRYV
 HZOQY EABVS FIGNM ULVWR CABDK KLMNE SIGFY GOQTT IDPPU RVXWX
 LZSOU SWXZC IGWTP BHABA DJNQV KFEMG RCUYP YZHIN MLJEF QOTVG
 XKOPS IKABV RNLHG QXADV EUMGW YQOPA BHHJM KNRST UVXYZ TLIGG
 FEDXZ UPMGA DIHSW YVQNK CFJOT XRLEB XZWSO HDAEK QVYTP MIFBF
 JLNRU CZTOJ SCFMQ WYLIA EKNPU XRHGD BVXRN IFADK PUZWS IOHCE

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SENDING PRACTICE

CLR XU GKOZA EQBNW PDSVI AHUYV MPH KC NLBJF GJQES JMKOR TWXYT
 AZBYC XDWEV FUGTH SIGJR KQLPM ONATJ DCLKP TOMMY QEWSB DENIH
 NMURD PROCK GFWIA VFQVS XZYXZ JHULB ACEGI KNPRT VXZYW USQOM
 KIGEC ABFHJ LOQSU WYZXV TRPNL JDHFB ACFIL ORUXZ BDJGM RSPAC
 HKQVW NKLHD BUQJE OZPSX EGNFM ITYVY TWAZB YCXEW CJGVL OILST
 FHMQU NPRHA DKPYZ BMEUT GKIWJ XLNRV OQSUF ABZNF AOQXJ DLVMH
 EPTWI RGUYS QKPJS IBEWZ YGDOC HKLMU NRVTA CEF IG KMPRT VXYVB
 DFHJL NOQSU WYBEG IKMPR TXZWX ACHGL DNQUO SQAGL QVZUP KFBHM
 RTWYT OJECI NSXXS NIDDJ OUYWR MHCEF KPZVQ LGBAD IPUZW RMFBC
 HOTYV QLEAB GNSXX SNHGC FMRWY TOIDA EJQVZ UJLKK PZUQL JCDHM

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TM 459-119

SENDING PRACTICE

VQMLE CHKOS WYUPL HDADH LPTXX TSYUO KGCAD GJMPS VYYUR OLIFC
 BEHKN QTWZX WSPNK HEBCF ILORU XZVTQ MJGAX AEIMQ UYXTP LHDAB
 FJLNR VXWSO KGCBC DGHKO SPTXV WZXRU NQSMI FJEAC EGIKM OQSUW
 XZYVT RPNLJ HFDCA BDFHJ LNPRT VXYZW UQSMO IKGEB ACFUL ORUXZ
 BEJMP SWXZX VYSTP NJMHD FBGCA IDHKN QOUWT VQRLE ACDHI JOPST
 WXZYV URQNM JIGFD CABFE LMRUX ZYWVT SQONP LKHKG BECFI LORUX
 ZXWSP LHFDB ADJGM PSVYZ VTQNK GESCB EAHJK IMQOT NUWAB EFIJM
 NQRVW ZZVUR QOMNK JHFDC ADHLP UYXWT PLIGT BDCEK OSXYZ XVTRP
 NLJHF DBACE GIKMO QSUWY ACEGO KMOQS UWYXZ WTRPV NLJHF DBCJG
 KFBNO RSVWZ ACDLM TUHIE PQXYD ENNIS MTCRC ADJKL PQVWY ZBFOA

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SENDING PRACTICES

SEBLM IGCFO PKHYV ZTOXU TRPMK UPMIF ADCEA IHGGN MQTUW LQIQW
 ONXZY WVSUQ FDARP NMLJI HFDEC ZWBKH GACNB UYWVZ XRXGR SOYSL
 OGAFC BBAQT ZXQGL HEDDV NSJRP QMKJI ZWVQP SDACF IKLOY QURPT
 LKNOJ GBDXI YZWTR SQABD CFKMP PQWQS PAEFI OLKHN AEPNM UVDCB
 TUDGH FTSNX ZFEJL POYXZ GXYVW XUYON HGBAI BHLZM SRERJ HRVMU
 VCCJG PRHJR ZADFG VXWNK BCJIU TSQOM ZWUPK EADJL JINOP STYLM
 HFDYX USKHK EBCNZ RSPLH GEVFI OPQNG ZCGHR WTMLN OIEAB MUZQV
 TMKFC DAGAH IACJR QLQSW VUVTX ZWQED XYXYF VRQLM OQVHA DNJIF
 CSUYZ XPJHG FEDBK OLTXR NJGFM RUSWR PKIJE DBBAZ VWUTI GJHFD
 PSUZK WPOKL GDCTX ACIKM QTXAN CWYBC HGLUS PZSKJ YZEEA QRTQN

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TM 459-120

SENDING PRACTICE

DETPN GAUTT GZRGF ATJMU KAGQJ OPUMW DIAGD WXFSP WNLKP OADTV
 OIGXY RQLJH ELMRS TUZXS POLKJ IJFES CBBGO ZYWXN HDBCD BIPQY
 XZWKH HQVYV TFACF AHILS RUINC RNMKJ NDDCE NFVBR QXYHN UXMKT
 AOWMG KRTUW TQOJH FETZX NLDAN BIPQG FUVJW SLMJN KHUZY RLNMK
 IGECS QPOQV XOACB KHSRY XZVTR QTUDC ABAEG IGIKO PPNMR ZNSID
 EFUZY WLOPU CATRW PHLJH FJSUY AWEFE GLAYR QSNLA OVTDZ ALPLJ
 GEDYU VWSJI HINMU XBFGD AGPDZ XTQOP JKHGF XRPNL MIHAX BDCLB
 ABJIJ HSYED CQXVU SNMAC IKDCN LIGFZ VUSOT ZUPOI HGEBM OUVOX
 YWVEL LKFEM REDNT VZECA ILOTO MLUYT SPNKJ HGBAD MWXJF AKOSW
 MKTZX YWROI GEABF EQUWY TPMJH IFGAV UZPHD SBLUV QQNJF EPXGC

48

SENDING PRACTICE

16830 43975 06782 58022 41594 66793 13854 15790 19369 43470
 22681 25870 38494 50316 97166 38078 24912 50527 39272 15835
 26023 82691 48570 37591 46931 40164 09843 16726 85431 80760
 48479 46802 59736 03197 21258 15058 37269 26943 48130 79125
 07864 57891 46901 69323 23587 48570 57012 46845 18373 26909
 37261 14852 05848 07621 47901 33794 68526 41790 08532 68542
 17385 63590 86410 25369 92718 47513 89476 25280 13407 76954
 32890 06715 48391 96384 52921 06731 06548 20451 38235 26718
 46901 69524 03980 75413 28526 67019 80764 43297 81590 34856
 30157 27321 99475 46801 93820 35724 94693 40512 07988 13268

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TM 459-121

SENDING PRACTICE

95372 86539 35061 73892 40259 17680 12048 34169 81742 18357
 69074 48905 89053 69325 72548 03041 52267 27450 31642 92841
 86836 35641 36587 74680 95289 40201 37069 59841 71279 05131
 80690 37148 07425 18963 52075 19742 95273 84062 85296 30741
 58148 37260 18639 24806 57363 84015 48391 73590 71265 26149
 23129 56477 31059 25360 72682 96880 74591 91434 26789 37504
 31697 79680 94003 68946 59985 46564 02470 27580 18493 71580
 83547 26964 30701 12212 13573 78530 18291 44234 36925 66789
 25048 86491 37953 03072 84196 15062 82251 13126 37675 39480
 06138 78259 58362 09741 48029 47692 26547 06973 81350 35891

50

SENDING PRACTICE

75381 24718 96143 84021 08671 95204 29837 16053 93568 27359
 14829 24613 05472 76225 14030 85247 26396 35098 50964 47906
 13150 97217 14895 96073 10304 98259 08647 78563 14653 63868
 14703 69258 26048 37259 24791 57025 36981 52470 84173 09608
 94162 56217 09537 19384 51048 36375 60842 93681 06273 84185
 09573 98762 43410 19547 08869 18624 06352 95013 77465 92132
 08517 39481 08572 07420 46564 58005 64986 30049 08697 79613
 09876 52963 43244 19281 03587 37531 21221 10703 46962 74538
 08493 57675 62131 15228 28051 69148 27370 35973 19468 84052
 19835 05318 37160 74562 29674 92084 14790 26385 95247 83160

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TM 459-122

SENDING PRACTICE

75381 24718 96143 84021 08671 95204 29837 16053 93568 27359
 14829 24613 05472 76225 14030 85243 62396 35098 50964 47906
 13150 97217 14895 96073 10204 98259 08647 78563 14653 63868
 14703 69258 26048 27259 24791 57025 36981 52470 84173 09608
 94162 56217 09537 19384 51048 23375 60842 93681 06273 84185
 09573 98762 43410 19547 08869 18624 06352 95013 77465 92132
 08517 39481 08572 07420 46564 58995 64986 30049 08697 79613
 09876 52963 43244 19281 03567 37235 21221 10703 46962 74538
 08493 57675 62131 15228 26051 69148 27370 35973 19468 84052
 19835 90546 37160 74562 29674 92243 14790 26394 95247 83160

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SENDING PRACTICE

59014 24698 15304 56099 51372 46540 19285 18577 40248 18521
 84326 79537 26901 35801 42568 39770 24681 34768 03527 96385
 01936 28376 17018 47096 73081 95173 02937 24496 06849 56012
 18629 38450 40873 85394 06270 32687 26039 70834 55682 10140
 59748 37968 51183 24002 92579 69755 64116 09845 10294 26037
 41137 09832 97312 59650 85321 96264 15984 87361 14376 45419
 43601 27496 39598 58270 14806 73521 04837 15208 39629 28164
 09475 16437 53861 96239 64027 05179 91285 07534 05049 25238
 41769 36801 38571 06947 23763 50419 17295 49268 37184 02685
 14806 97525 32397 10843 76854 12906 08521 93646 47395 08261

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TM 459-123

PRACTICE MESSAGE

8CK DE 9EX NR7 -R- 101214R GR 36 BT
DRILL SGDBC AEIQN 59786 GHECI MORTU XKPJL QSWYX VFBAD HMPTX
ZUWVL 85604 DFKOB NSRQE ZAGCJ IPRTK IJLNO MGADE BCHFV XWZUB
HIORT VXYZL FDGCE AKJNP QMUWS CJMNI 95632 PTVXZ RSOLK FDGBH
AEUYW QAGIL ORSUY PZXMJ 40361 DEHKQ BT

54

PRACTICE MESSAGE

4BD DE 8LX NR8 -M- 171048Z GR 47 BT
DRILL CFHIL OPUWZ BEGKD MRTNQ YXSAA BDFGI JHECK OQUYZ XWVRS
PMNTL CGMPU WYQSR TJILH KEANB FOVXZ DCHJK EFBDA NTVXW QSRZY
UPOGB IRBDA ECFGM QSRUV WYTZX KLIJH PONHJ PRLQS DFCAV WYUNO
TZXKG EDFHI JLMQS VCTUZ NOKEA GCPYR BWEFI LNPRD UWYKG HBDJO
QMTCX ZCAVE IJNSU WYZQP GHLBK AORMF VTXDC BT

55

PRACTICE MESSAGE

GX5 DE 5HB NR16 -P- 171200Z GR 41 BT
DRILL DLHNT UYXEB JCEGI KFHCD RSQLU 35924 VXYOP NTWZM BAJGH
IJMPR 96405 DCLFC VXZWT YUNOE ABCFG DBEIK MORSQ VWZYA UTNLP
DFHJI SLQRN VXZWY UPOMB DCAHI LNPCV YWXZU QSROK 54623 CEFGA
BCFIM ORSLU WXYZJ LKGHD 57098 BAPQN FIKMP UWYQS OHDC A GBELR
NVXZJ BT

56

PRACTICE MESSAGE

G84 DE G85 NR14 -R- 171415R - FM G85 - TO G84 GR 12 BT
DRILL TDGIJ MOQNT WXYZV URSKL HBEAF CDINY WXUZR SVQTO PPLKH
MJFEA BGCJM BT.

57

TM 459-125

PRACTICE MESSAGE

1XO DE 8CK NR3 -M- 070413R GR 39 BT
DRILL ZWCDH NPRUX QYOQM 62185 IFDEA CBDFI JMPSV YUXRQ OJNTW
LTGHC ABEZO RSTQV ZYNJG DFAEB CHILM KPWXU 52178 JGIQL MWXQT
NPSNH ECAEG 41089 JMPQR TUVXY BFADC IHLFD BQOSZ YWEGI KLN PQ
SUVXT YBDAR HCJMO 16932 EHIJL MXQBY RTOUX ZFGAC DMNBK BT

58

PRACTICE MESSAGE

PX1 DE CL2 NR13 -R- 122317R GR 43 BT
DRILL BFNTW HKMQS 15701 OPRU XZJWF AYDCN LGIEB FILOR UWYZX
VTQPS MKNHJ DEGBA CORTW YKIGF DBAHM 72489 NPSUT XLZJE FHKMP
RUWYZ SOLNQ DEBCA JGIVX THJLN 71362 SVXYT UWOAD GKCPR IMFEB
38654 FHJLP RTVXZ NOKGD IEACB USWQM HJKNR UWXY S TVOQM PLIFG
ZBDEA CGLSQ VWIUR BT

59

TM 459-126

PRACTICE MESSAGE

RW2 DE CL4 NR3 -T- 3WB -R- 171900Z - FM CL4 - TO 3WB GR 51 BT
DRILL EFGDA NMXYD BEFGC HKMQU ZXVYW TRSNL IAJOP DFHKM BGIOP
AEJLQ RWOY SVTUN CFHKD IALNP KJGSR UVQYZ XWTMO EHLPT BGJOU
VRSQN CFIKM ADWXZ YDGKN AFQRS WYLIJ CHBPU ZXVTM EDHKL ONMTU
YWJIE BFPSR QVZXA CGDFH BMPUG JLITW ZXRSQ OKNAC VEFIN ADPVY
BGHMU RSQK CEOJW YXZQS AHJLM DNKVV YAHIJ HMQSR GTUVW ZDPOM
EF JL BT

60

PRACTICE MESSAGE

IZ05 DE FB88 NR9 -Y- 262329R - FM FB88 - TO 1Z05 GRNC BT
DRILL ADVISE PARENTS CADET MARTIN MILLER CONFINED STATION HOSPITAL
POSSIBLE PNEUMONIA DRILL BT

PRACTICE MESSAGE

1X0 DE AL8 NR1 -Z- GRNC BT
DRILL CONTRACTORS CANNOT FURNISH QUOTATIONS AIRPLANE SMOKE ELIMINATOR
ASSEMBLY BEFORE FEBRUARY TENTH DRILL BT

61

TM 459-127

PRACTICE MESSAGE

1Z04 DE AL82 NR4 -T- FB84 -M- 011550R - FM AL82 - TO 1Z04

- INFO FB84 GRNC BT

DRILL TEN CARLOADS NORTHERN STANDARDS DUE QUARTERMASTER

SUBSISTENCE AGENT NOT RECEIVED DRILL BT

J66 DE 6WO NR5 -P- 131456R - FM 6WO - TO J66 - XMT 5TE GRNC BT

DRILL RERAD TWELFTH RAYMOND WALLING ENROLLEE REQUESTS TRUE

COPY PROCEEDINGS SUBMITTED THIS OFFICE UPON COMPLETION DRILL

BT

62

PRACTICE MESSAGE

BC6 DE 8QB NR8 -R- 282921R GRNC BT

DRILL OUR CASUALTY LISTS DELAYED BY ERROR OF MESSENGER BUT WILL

ARRIVE BEFORE MIDNIGHT DRILL BT

AL8 DE AL2 NR6 -P- 180229 GRNC BT

DRILL REPORT ARRIVAL OF MAJOR RINELAND BY TELEPHONE UPON

ARRIVAL AT YOUR GP DRILL BT

63

TM 459-128

PRACTICE MESSAGE

1X0 DE FB81 NR5 -0- 280409R - FM FB81 - TO 1Z0 GRNC BT

DRILL RECONSTRUCTION OF FLORIDA KEYS RAILROAD WILL BE
UNDERTAKEN JOINTLY WITH STATE ADMINISTRATION DRILL BT

1Z0 DE 5ZU6 NR1 -F-R- 222120R - FM 5ZU6 - TO 1Z0 GRNC BT

DRILL HOSPITAL BILOXI RADIOS REQUEST STATUS SAMUEL F SMITH
RELATIVE CASE REQUIREMENTS DRILL BT AR

64

PRACTICE MESSAGE

J66 DE D2N NR18 -M- 231714R GRNC BT

DRILL RERAD DATE SPREADER ASSEMBLY GOING FORWARD BY EXPRESS
TOMORROW DRILL BT

1Z06 DE AL8 NR27 -0- 221120R - FM AL8 - TO 1Z06 GRNC BT

DRILL TEMPORARY APPOINTMENT HARTFORD A KILLAN MOTOR EXPERT
JANUARY FIRST APPROVED DRILL BT

65

TM 459-129

PRACTICE ON CLEAR TEXT

PS4 DE 9ND NR3 -M- 272315Z - FM PL5 - TO HK4 GR57 BT
INTELLIGENCE IS AN OFFENSIVE WEAPON CMM ONE WHICH SEARCHES
OUT THE VULNERABLE POINTS IN A NATIONS ARMOR CMM AND
ATTACKS STRONG POINTS AGAIN AND AGAIN UNTIL THEY CMM
TOO CMM ARE MADE WEAK PD THE ONLY DEFENSE AGAINST
INTELLIGENCE IS SECURITY AND NO FORM OF SECURITY IS MORE
IMPORTANT OR MORE EFFECTIVE THAN COMMUNICATION SECURITY
PD BT K

66

PRACTICE ON CLEAR TEXT

4SL DE XL6 NR1 -Y- 081145Z - FM DU8 - TO 4SN GR82 BT
SINCE MOST INDUSTRIAL MACHINERY IS DRIVEN BY POWER OBTAINED FROM
COAL CMM THE IMPORTANCE OF WESTERN EUROPE TO THE SAFETY OF THE FREE
WORLD MAY BE ILLUSTRATED BY A COMPARISON OF COAL RESOURCES PD THE
UNITED STATES AND FREE EUROPE COMBINED NOW PRODUCE MORE THAN TWICE
AS MUCH COAL AS THE ENTIRE SOVIET EMPIRE PD BUT IF RUSSIA CONTROLLED
ALL EUROPE CMM THE PICTURE WOULD BE DIFFERENT PD SOVIET COAL
PRODUCTION WOULD THEN BE GREATER THAN THAT OF THE UNITED STATES PD BT K

67

TM 459-130

PRACTICE ON CLEAR TEXT

AN6 DE P2N NR21 -M- 272148Z - FM FB3 - TO P7X - INFO RA6 GR87 BT
STRIKE THE KEYS WITH QUICK CMM SHARP STROKES CMM BUT AVOID
HAMMERING OR POUNDING THE KEYS PD REACH FOR THE KEYS WITH THE
FINGERS CMM AND EXERT FORCE FROM THE WRIST CMM NOT FROM THE
SHOULDERS PD USE THE THUMB OF THE RIGHT HAND TO OPERATE THE
SPACE BAR PD AT THE END OF EACH LINE CMM RETURN THE CARRIAGE
TO THE RIGHT BY MEANS OF THE CARRIAGE LEVER PD USING THE
LEFT HAND CMM PUSH THE CARRIAGE LEVER ALL THE WAY TO THE
MARGIN STOP PD BT K

68

PRACTICE ON CLEAR TEXT

CD4 DE LB5 NR7 -M- 041526Z - FM 4SN - TO 89L - INFO 8MD GR79 BT
THE GAP BETWEEN THE CONTACTS CMM REGULATED BY THE SPACE
ADJUSTING SCREW AT THE BACK OF THE KEY CMM SHOULD BE ABOUT
THE THICKNESS OF A POSTCARD PD THIS MEASUREMENT APPLIES
TO EVERY KEY CMM AND IS NOT A MATTER OF PERSONAL PREFERENCE
PD CONTACTS THAT ARE TOO CLOSE TOGETHER HAVE AN EFFECT
SIMILAR TO WEAK SPRING TENSION CMM AND CONTACTS THAT ARE
SPACED TOO FAR APART HAVE THE SAME EFFECT ON SENDING AS TOO
MUCH SPRING TENSION PD BT K

69

TM 459-131

PRACTICE ON CLEAR TEXT

8PL DE 2J2 NR3 -Y- 211405Z GR95 BT

NO PERSON IS ENTITLED TO KNOWLEDGE OR POSSESSION OF CLASSIFIED DEFENSE INFORMATION SOLELY BY VIRTUE OF HIS RANK CMM OFFICE CMM POSITION CMM OR SECURITY CLEARANCE PD SUCH MATTER WILL BE ENTRUSTED ONLY TO INDIVIDUALS WHOSE OFFICIAL DUTIES REQUIRE KNOWLEDGE OR POSSESSION AND WHO HAVE BEEN PROPERLY CLEARED PD RESPONSIBILITY FOR DETERMINING WHETHER THE OFFICIAL DUTIES OF A PERSON REQUIRE THAT HE HAVE ACCESS TO ANY ITEM OF CLASSIFIED DEFENSE INFORMATION RESTS UPON EACH INDIVIDUAL WHO HAS POSSESSION CMM KNOWLEDGE CMM OR COMMAND CONTROL OF THE INFORMATION INVOLVED AND NOT UPON THE PROSPECTIVE RECIPIENT PD BT K

70

PRACTICE ON CLEAR TEXT

BF6 DE SG7 NR11 -P- 051606Z GR87 BT

ONE OF THE WORLDS MOST SUCCESSFUL EXPERIMENTS IN COLLECTIVE SECURITY BEGAN ON 4 APRIL 1949 CMM WHEN REPRESENTATIVES OF THE UNITED STATES AND 11 OTHER NATIONS OF THE FREE WORLD CMM MEETING AT WASHINGTON CMM SIGNED THE DEFENSIVE ALLIANCE KNOWN AS THE NORTH ATLANTIC TREATY ORGANIZATION PD SINCE THEN TWO ADDITIONAL COUNTRIES CMM GREECE AND TURKEY CMM HAVE JOINED THE ALLIANCE BRINGING THE TOTAL NUMBER TO 14 PD THE LONG HYPHEN DISCUSSED PRINCIPLE OF COLLECTIVE SECURITY HAS AT LAST BECOME A WORKING REALITY IN NATO PD BT K

71

TM 459-132

PRACTICE ON CLEAR TEXT

4SN DE 8MD NR6 -M- 041242Z GR89 BT

A TYPEWRITER CONTAINS 1800 TO 2000 PARTS PD AN OPERATOR TYPING

AT THE RATE OF 60 WORDS PER MINUTE ACTUATES 10000 TO 12000

PARTS PER MINUTE PD OTHER FACTORS BEING EQUAL CMM IF THE TYPIST

MAINTAINS AN EVEN TOUCH THE TYPEWRITER RESPONDS PERFECTLY PD

UNEVEN TOUCH CMM HOWEVER CMM WILL CAUSE THE MOST WELL HYPHEN

ADJUSTED TYPEWRITER TO SKIP SPACES CMM PILE UP TYPE BARS IN A

TANGLE CMM CROWD LETTERS TOO CLOSE TOGETHER CMM DEVELOP RIBBON

FEED TROUBLES CMM AND OTHERWISE BEHAVE AS THOUGH IT WERE MAL-

ADJUSTED PD BT K

72

PRACTICE ON CLEAR TEXT

BD77 DE PH4 NR16 -M- 230710Z GR80 BT

AN OPERATOR WHO TRIES TO SEND TOO FAST ON THE HAND KEY HAS A

TENDENCY TO FORM SHORT DAHS AND SPACE CHARACTERS TOO CLOSE

TOGETHER PD SENDING TOO FAST FOR A CONSIDERABLE LENGTH OF TIME

RESULTS IN A QUOTE GLASS ARM PD UNQUOTE THIS CONDITION IS

CHARACTERIZED BY AN UNNATURAL TIGHTENING OF THE MUSCLES OF THE

ARM AND A GENERAL LOSS OF CONTROL PD SEND AT A SPEED WHICH YOU

CAN CONTROL PD REMEMBER ACCURACY FIRST CMM SPEED LATER PD BT K

73

TM 459-133

By Order of the Secretary of the Army:

HAROLD K. JOHNSON,
General, United States Army,
Chief of Staff.

Official:

KENNETH G. WICKHAM,
Major General, United States Army,
The Adjutant General.

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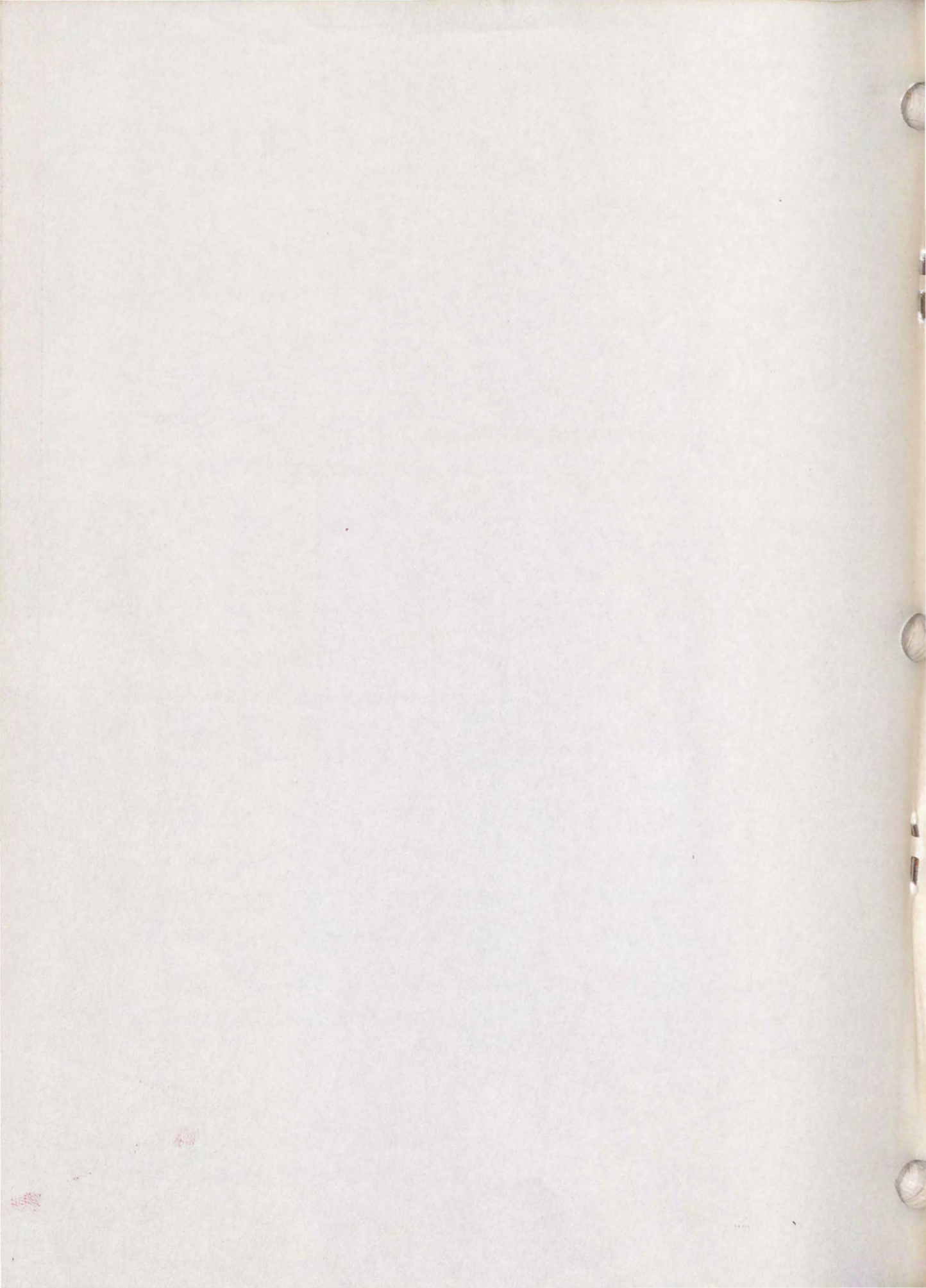
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NG: State AG (3); Units—same as active Army except allowance is one copy to each unit.

USAR: Same as active Army except allowance is one copy to each unit.

For explanation of abbreviations used, see AR 320-50.



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