MANUAL No. 2

REGULATIONS

FOR

UNITED STATES MILITARY TELEGRAPH LINES ALASKAN CABLES, AND WIRELESS TELEGRAPH STATIONS

1911

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UNITED STATES MILITARY TELEGRAPH LINES, ALASKAN CABLES, AND WIRELESS TELEGRAPH STATIONS

U. S. SIGNAL CORPS

Prepared under the direction of

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Chief Signal Officer of the Army

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OFFICE OF THE CHIEF SIGNAL OFFICER.

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Office of the Chief of Staff,
Washington, October 17, 1911.

The following regulations for the operation and maintenance of all military lines of communication, under the direction of the Chief Signal Officer of the Army, are published for the information and guidance of the officers, men, and employees of the Signal Corps. They will replace all instructions contained in previous publications relating to the operation of military telegraph lines.

While the specific rules herein promulgated have been drawn with special reference to large offices, they will be adhered to, as far as possible, at all offices where there is but one operator. All officers and enlisted men of the Signal Corps and civilian employees engaged in telegraph work are enjoined to make themselves familiar with the provisions of this manual.

By order of the Secretary of War:

W. H. Carter,
Major General, Acting Chief of Staff.

TABLE OF CONTENTS.

REGULATIONS FOR UNITED STATES MILITARY TELEGRAPH LINES.

CHAPTER I.

GENERAL INFORMATION.

1. In General Orders, No. 1, Adjutant General's Office, January 20, 1879, the Secretary of War states:

In all instances in which United States telegraph lines are by order of the Secretary of War placed in charge of acting signal officers, who are thus made responsible for the construction, maintenance, and operation of the same, commanding officers and others will see that the especial duties of such officers are not interfered with, and will, upon application, render whatever proper assistance may be in their power.

The lines form parts of one connected system of telegraphy extending throughout the United States. They serve military, commercial, naval, and other distant interests. The disabling of or interference with any part may cause complications not possible to be contemplated in the immediate vicinity. Official and military messages have precedence on all Government lines.

2. It is recognized that in cases of grave military emergencies local commanding officers can and should take control of military telegraph lines and the entire personnel within the limits of their command, and signal officers in such cases should cheerfully and loyally obey any instructions then received. It is further to be understood that signal officers shall faithfully execute any and all instructions issued by department or division commanders bearing on their duties connected with military telegraph lines.

3. Seeming invasions of the duties and powers of the officers of the Signal Corps, when engaged in carrying out general instructions issued under the authority of law by the Chief Signal Officer of the Army, should always be accepted until remedied by the local commander, whose attention, however, should be invited to the situation as viewed by the signal officer. Such statements should be made in writing when practicable, and if made verbally, should later be reduced to writing and duly presented at the earliest practicable moment.

The Signal Corps is a servant of the Army, and signal officers should never forget that it is their function to find out what to do and how to do it. Courtesy, consideration, and restraint are needed qualities of signal officers, and if properly applied to practical condi-

tions, will rarely fail of satisfactorily solving any annoying conditions.

4. Military lines owned by the United States are subject only to the laws of the General Government, being built especially for maintaining quick and sure means of communication for military purposes and for the better protection of frontier settlements and remote stations from depredations. No use will be permitted of these lines that would defeat the object of their construction.

The operators on these lines are enlisted men of the Signal Corps or civilian employees who have accepted military discipline. They will not fail to show to military superiors the proper respect and courtesy required by Army Regulations; they will give commanding officers cordial cooperation in handling dispatches and in rendering every possible assistance in promoting military operations and, in all cases, will treat the demands of their military superiors with the greatest respect.

5. To secure the greatest measure of usefulness and efficiency of these lines for military purposes, the following rules are enjoined and will be strictly observed: Enlisted men and employees in charge of stations (not at military posts and where there are no troops) will promptly communicate to commanding officers of posts or cantonments nearest to their stations, and on each side thereof, any information coming to their knowledge regarding the enemy, and to transmit to such commanding officers all reports brought to a station by scouts, or other persons, respecting outbreaks, raids, depredations, or movements of the enemy.

To enable commanding officers to determine the degree of importance to attach to such reports, operators will state with the utmost particularity how the information thus communicated was obtained, the nature and extent of the depredations, and the place where committed; whether the depredations were by Indians or other parties, and, if Indians, the band or tribe to which they belong, the number in the party, and the direction whence they came and toward which they traveled.

6. To be of value in military operations, it is indispensable that information of this character should be communicated with the least possible delay.

The foregoing instructions will not be understood as authorizing operators or other employees to communicate to military commanders information *which they may hear passing over the wires*, or from rumors respecting operations or movements of troops which may be current at a military post. In such cases it will be assumed that commanding officers will themselves communicate such information to other military commanders should they deem it proper or necessary to do so.

CHAPTER II.

CONTROL AND MAINTENANCE.

7. The act of Congress approved October 1, 1890, section 2, directs that the Chief Signal Officer shall have charge, under direction of the Secretary of War, of * * * "the construction, repair, and operation of military telegraph lines," * * * "and the duty of collecting and transmitting information for the Army by telegraph or otherwise."

In construing this law it has been decided that (U. S. Military Laws, ed. 1901, p. 463) "the act of October 1, 1890 (Stat. L., 653, par. 1227), which places the Chief Signal Officer in charge of 'construction, repair, and operation of military telegraph lines,' repealed the act of August 7, 1882 (22 Stat. L., 319), which vested the supervision of the construction and operation of military telegraph lines in department commanders."

8. For an efficient telegraph system it is necessary to have uniformity in the regulations governing the operation of military lines, and such rules should not conflict with the rules in force upon connecting commercial lines. To secure this uniformity, two classes of rules have been established. First: General regulations which must be obeyed by all concerned. Second: Special regulations which are applicable to certain cases only. The regulations in this manual cover only the general rules.

9. For convenience of administration all telegraph and telephone lines are divided into classes, and unless otherwise specially ordered are placed under the control of officers, as follows:

A. Lines complete within the limits of a single military post, in charge of the post signal officers under direction of the post commanders.

B. Short lines constructed to connect single posts with a commercial telegraph or telephone office, and having no other stations upon them, in charge of the chief signal officer of the division.

C. Lines connecting two or more posts in the same military department and all other lines which are complete within the limits of a single department, in charge of the chief signal officer of the division.

D. Lines connecting points in different military departments which constitute a military division, in charge of the chief signal officer of that division.

E. Lines connecting points in different independent departments, in charge of an officer specially designated for that purpose.

Whenever the lines enumerated in classes *C* and *D* are of sufficient extent to require division into sections and the assignment of officers to duty in charge of these sections, such officers will be, unless otherwise ordered, under the control and supervision of the chief signal officer of the division in which the lines are located, except in the case of the Washington-Alaska Military Cable and Telegraph System, in connection with which special regulations have been provided. (See Chap. X of this manual.)

10. Deviation at a single station from the rules established for the operation of military telegraph lines may seriously interfere with the efficiency of the entire line. The special duties, therefore, of officers in charge and operators should not be interfered with except in cases of grave military emergency.

11. Where telegraph lines are, by order of the Secretary of War, placed in charge of signal officers, these officers will be held responsible for the construction, maintenance, and operation of such lines. Commanding officers and others are required by existing orders to see that the special duties of such officers are not interfered with, and, upon proper application, will render any assistance in their power.

12. The regulations contained in this manual will govern in all matters pertaining to military telegraph lines maintained and operated by the Signal Corps.

13. "Whoever shall willfully or maliciously injure or destroy any of the works, property, or material of any telegraph, telephone, or cable line or system operated or controlled by the United States, whether constructed or in process of construction, or shall willfully or maliciously interfere in any way with the working or use of any such line or system, or shall willfully or maliciously obstruct, hinder, or delay the transmission of any communication over any such line or system, shall be fined not more than one thousand dollars or imprisoned not more than three years, or both." (Act of Mar. 4, 1909, G. O. 22, W. D., 1910.)

14. The following sections found on page 1029, Supplement to the Revised Statutes of the United States, Volume II, 1892–1901, are inserted here for the information and guidance of all:

SEC. 166. That if any officer, agent, operator, clerk, or employee of any telegraph company, or any other person, shall willfully divulge to any other person than the party from whom the same was received, or to whom the same was addressed, or his agent or attorney, any message received or sent, or intended to be sent, over any telegraph line, or the contents, substance, purport, effect, or meaning of such message, or any part thereof, or shall willfully alter any such message by adding thereto or omitting therefrom any word or words, figure or figures, so as to materially change the sense, purport, or meaning of such message, to the injury of the person sending or desiring to send the same, or

to whom the same was directed, the person so offending shall be deemed guilty of a misdemeanor and shall be punished by a fine not to exceed one thousand dollars, or imprisonment not to exceed one year, or by both such fine and imprisonment, in the discretion of the court: *Provided*, That when numerals or words of number occur in any message the operator or clerk sending or receiving may express the same in words or figures, or in both words and figures, and such fact shall not be deemed an alteration of the message, nor in any manner affect its genuineness, force, or validity.

SEC. 167. That if any agent, operator, or employee in any telegraph office, or other person, shall, knowingly and willfully, send by telegraph, to any person or persons, any false or forged message, purporting to be from such telegraph office, or from any other person, or shall willfully deliver, or cause to be delivered, to any person, any such message, falsely purporting to have been received by telegraph, or if any person or persons shall furnish or conspire to furnish, or cause to be furnished, to any such agent, operator, or employee to be sent by telegraph, or to be so delivered, any such message, knowing the same to be false or forged, with the intention to deceive, injure, or defraud any individual, partnership, or corporation, or the public, the person or persons so offending shall be deemed guilty of a misdemeanor and shall be punished by a fine not to exceed one thousand dollars or imprisonment not to exceed one year, or by both such fine and imprisonment, in the discretion of the court.

SEC. 168. That if any agent, operator, or employee in any telegraph office shall, in any way, use or appropriate any information derived by him from any private message or messages passing through his hands and addressed to any other person or persons, or in any other manner acquired by him by reason of his trust as such agent, operator, or employee, or shall trade or speculate upon any such information so obtained, or in any manner turn or attempt to turn the same to his account, profit, or advantage, the person so offending shall be deemed guilty of a misdemeanor and shall be punished by a fine not to exceed one thousand dollars or imprisonment not to exceed one year, or by both such fine and imprisonment, in the discretion of the court, and shall also be liable in treble damages to the party aggrieved for all loss or injury sustained by reason of such wrongful act.

SEC. 171. That if any person not connected with any telegraph company shall, by means of any machine, instrument, or contrivance, or in any other manner, willfully and fraudulently read or attempt to read any message or learn the contents thereof, whilst the same is being sent over any telegraph line, or shall willfully and fraudulently or clandestinely learn or attempt to learn the contents or meaning of any message while the same is in any telegraph office, or is being received thereat, or is sent therefrom, or shall use or attempt to use, or communicate to others, any information so obtained by any person, the person so offending shall be deemed guilty of a misdemeanor and shall be punished by fine not to exceed one thousand dollars or imprisonment not to exceed one year, or by both such fine and imprisonment, in the discretion of the court.

SEC. 172. That if any person shall, by the payment or promise of any bribe, inducement, or reward, procure or attempt to procure any telegraph agent, operator, or employee to disclose any private message, or the contents, purport, substance, or meaning thereof, or shall offer to any such agent, operator, or employee any bribe, compensation, or reward for the disclosure of any private information received by him by reason of his trust as such agent, operator, or employee, or shall use or attempt to use any such information so obtained, the person so offending shall be deemed guilty of a misdemeanor and shall be punished by fine not to exceed one thousand dollars or imprisonment not to exceed one year, or by both such fine and imprisonment, in the discretion of the court.

15. Such authority and supervision over military telegraph lines as is delegated to chief signal officers of divisions by this manual is, in connection with the Alaskan Military Cable and Telegraph System, vested in the officer in charge of the Washington-Alaska Military Cable and Telegraph System, Seattle, Wash., and all reports, etc., required to be submitted to the former should, in respect to the Alaskan System, be submitted to the officer in charge at Seattle.

16. By authority of the Secretary of War, approved June 16, 1900, all matters relating to the handling of official and commercial business over the United States military telegraph and cable lines in Alaska are under the direction and supervision of the Chief Signal Officer of the Army.

17. All wireless stations in any division which are maintained and operated by the Signal Corps are considered a part of the military telegraph system of that division.

CHAPTER III.

OFFICE RULES.

RECEIVING DEPARTMENT.

RULE 1.

Conditions under which commercial messages may be transmitted.

Commercial, press, and free messages (Rule 18) may be transmitted over the United States military cable and telegraph lines when of a lawful nature and when the lines are not needed for Government use.

Acceptance and delivery of messages by telephone is not authorized and the line can not assume responsibility for errors occurring in messages so transmitted.

RULE 2.

Messages to be on proper forms.

Each message for transmission will be written upon the form provided for that purpose, and when not so written will be pasted to such form so as to leave the printed heading in full view above the message.

Official messages of the various departments or bureaus of the Government for transmission in part over commercial lines should be written on the blank forms furnished by the departments or bureaus, but if written on any other form and properly certified they will be accepted. (See Rule 17.)

RULE 3.

Messages to be timed, etc., by receiving clerks.

Each message will be timed by the receiving clerk, who will see that the place from, month, and day are correctly noted thereon; he will also carefully read each message before accepting it, and when necessary will make it plain by marginal notation before it is sent to the operator. Messages bearing back dates will under no circumstances be accepted.

Entry on receiver's register.

The principal offices will enter, by number, on Form 135, at the time and in the order of their acceptance, all messages which are accepted for transmission. The personal signal of the receiving clerk will be entered immediately before or after the time of filing in the

space for that purpose. A careful comparison should be made between the receiver's register and telegrams sent, each day before closing if practicable, to see that all messages accepted during the day have been duly transmitted.

Sunday's business.

Sunday's business will be entered as a part of Saturday's business, except when the first day of the month falls on Sunday, in which case Sunday's business will be entered as a part of the business of the following Monday.

Assistance to be rendered the sender.

The receiving clerk should give any aid or explanation necessary to enable the sender to prepare his message so that errors or delays may be avoided.

Changes in messages, misspelled words, etc.

No change should be made in any message, but misspelled or abbreviated words may be courteously referred to the sender for correction. If the sender decline to make the correction, the message will be accepted as written, the provisions of Rule 10 being adhered to. Messages containing purposely misspelled words prepared with a view to avoiding full payment will not be accepted.

Importance of address.

The importance of the address can not be overestimated. When the address given seems insufficient, a better one should be requested.

Code addresses on land line or domestic messages are insufficient, and therefore will not be accepted.

Unsigned messages.

If a message be offered without signature, the sender's attention should be called to the omission, and if the sender then declines to sign the message, the receiving clerk will write in the place of the signature the words "Not signed."

Messages sent by error to wrong destination.

When an originating office learns that a message has been sent by error of the line to a wrong destination, it will at once forward the message to the proper address as a new message, and notify the office to which it has been improperly sent to file it without checking.

RULE 4.

Messages transferred to other lines to be routed by sender, etc.

Where there are two or more connecting commercial lines at point of transfer, the sender of a message addressed to "other line" offices will be requested to indicate his preference in writing. The receiving clerk will indicate the routing by inserting the initial letter of the company in the message just before the destination, using the letter "P" to indicate Postal, and the letter "U" for Western Union.

Operators will transmit and copy these routing instructions. Where no preference is indicated, the transfer office will equally distribute the messages between the different commercial companies.

It is not necessary to indicate routing on Government messages except in the following cases: (1) Where rates over "other lines" are different, in which case the line quoting the lowest rate should be indicated; (2) during interruptions to lines which necessitate unusual routing, in which case routing must invariably be shown.

Messages for telephone offices in Alaska.

When messages for telephone stations in Alaska are addressed so that a Signal Corps telegraph station seems to be the destination, they will be held and a service message sent to the originating office to ascertain whether the messages are to be sent by telephone or whether they are to be mailed; for instance, a message addressed to Cleary Creek, Fairbanks, Alaska, or Bluff, Nome, Alaska, will not be forwarded until definite instructions are received.

Routing of collect answers to paid messages, etc.

In every instance collect answers to paid messages must be routed back over the same line. If not indicated by the sender, the receiving clerk must supply the deficiency. The importance of indicating the routing in such cases can not be overestimated. Omission of such information frequently results in failure to make collection or delivery of the message.

Service messages to other line offices.

Service messages pertaining to "other line" business will similarly indicate the routing by inserting the initial letter just before the destination or signature, as the case may be. Replies to service messages must invariably be addressed to the "other line" office from which the original is received. (See Rule 55.)

Routing of messages where there is a difference in rates.

Whenever the tariffs over other lines from the transfer office to destination are not identical, the routing must be indicated invariably by the originating office, and the transfer office will not deviate from the routing indicated by the originating office without authority from that office.

RULE 5.

During interruption of line, messages to be accepted "Subject to delay."

If a message be offered when communication is known to be interrupted, it will be accepted only if the sender choose to leave it for transmission when communication is restored. Upon such a message write the words "Subject to delay" and request the sender to affix thereto his signature or initials. If he refuse to affix his signature or initials, the message will not be accepted. This requirement will not

be waived. Claims for refunds of tolls on messages accepted during an interruption will not be honored.

It is not necessary to transmit the words "Subject to delay" in the check of messages accepted during an interruption to the line.

RULE 6.

Time of transmission and delivery not to be specified.

All persons concerned are particularly cautioned against making any promises to patrons respecting the transmission or delivery of a telegram within a specified limit of time. The assurance that due diligence will be exercised is proper. The difference of time, if any, between the originating and delivering office should be mentioned. The difference in time between Seattle and Sitka is one hour; between Seattle and Valdez it is two hours; and between Seattle and Nome it is three hours.

RULE 7.

Prepayment of tolls and extension of credit.

All messages will be prepaid except those covered by Rules 7, 8, 17, and 18. Credit is not authorized.

Answers to prepaid messages.

(*a*) An answer to a prepaid message or a message for which payment for transmission or for special delivery has been guaranteed by a responsible person may be accepted "collect," when the entire service is over the United States military cable, telegraph, or wireless lines. The office accepting and sending a message "collect" under any other conditions than those set forth in this rule will be held responsible for the tolls thereon.

(*b*) An answer to a prepaid message or message for which payment for transmission or for special delivery has been guaranteed by a responsible person originating at a point on military lines and addressed to a point on the line of a commercial company whose line directly connects with the military lines, may be accepted as a "collect message," provided that said commercial company accept such messages with the understanding that the Government does not guarantee the collection of said tolls, nor that the Government will hold said commercial companies responsible for the tolls on such messages over military lines in case the tolls prove uncollectible after due effort has been made to collect same. Similarly, "collect" telegrams transferred to military lines from the lines of commercial companies will be accepted with the understanding that the Government does not guarantee the collection of said tolls and that, should the tolls be uncollectible after due effort has been made to collect same, the Government will not hold the said commercial company responsible for the tolls over the military lines. Messages transferred and received from commercial companies under the above conditions, shall, in addi-

tion, be subject to the usual conditions governing the transmission of "collect" messages over the military telegraph lines.

(*c*) The agreement above referred to must be made in writing with the officer in charge, Washington-Alaska Military Cable & Telegraph System, Seattle, Washington.

Transmission of "collect" wireless messages received from ships at sea or shore stations.

(*d*) Wireless messages received from ships at sea or shore stations will not be transmitted "collect" except:

1. When destined for points on the Washington-Alaska Military Cable & Telegraph System or for points on the line of a commercial company whose line directly connects with the military line, and which company has agreed in writing to the understanding prescribed in paragraph "*b*" provided that the transmission of the message involves no telegraph, wireless, or cable companies who are not parties to the agreement specified above.

2. When message is in answer to a prepaid message, the sender of which has made satisfactory deposit to cover reply.

3. Cases of emergency or where delay of transmission might imperil life.

4. Where the station transmitting the message belongs to some wireless telegraph company which has previously made satisfactory arrangements with the officer in charge at Seattle, guaranteeing the payment of tolls on such messages.

5. Where satisfactory arrangements have been made with the officer in charge at Seattle by the sender or company such person may represent, guaranteeing the payment of tolls involved by such message.

RULE 8.

Guarantee deposits.

When a deposit has been made to guarantee payment for transmission, or for special delivery, the deposit will be returned after three days, if no notice of failure to collect the charges has been received. But if a notice of failure to collect be received, the amount due the line will be deducted from the deposit and the remainder will be returned. (See Rules 50 and 51.)

A deposit for a 10-word reply will be required on messages requiring answers, except when filed by responsible persons.

RULE 9.

Words to be counted in official messages.

All words in official messages, including address and signature, but excluding the name of the place from which sent, date, and the words "official business," will be counted.

An official message containing less than 20 words is charged for as a 20-word message by other lines, but the actual number of words contained in the message will be counted and transmitted in the

check. (See rules in tariff books of other lines regarding Government messages.)

RULE 10.

Words to be counted and charged for in commercial messages.

A message of less than 10 words will be charged for as a 10-word message.

In prepaid commercial messages the words will be counted and charged for as follows:

All words in an extra date. (See Rule 16.)

All extra words in an address.[1]

All words, figures, and letters (as per Rule 11) in the body of a message.

All signatures, when there are more than one, except the last.

All words after the signature, whether title or otherwise.

In the check, the words "report delivery," "delivery charges guaranteed," "report delivery charges," and "repeat back."

In collect messages the word "collect" in the check will be counted but will not be charged for.

When a message bears two or more addresses, and delivery is to be made to each address, it will be charged for as two or more messages, as the case may be.[2]

RULE 11.

Dictionary words, code words, etc.

In counting a message "dictionary" words (i. e., words taken from one of the following languages, namely, English, German, French, Italian, Dutch, Portuguese, Spanish, and Latin), initial letters, surnames of persons, names of cities, towns, villages, States, or Territories, or names of the Canadian Provinces will be counted and charged for each as one word. The abbreviations for the names of towns, villages, States, Territories, and Provinces will be counted and charged for the same as if written in full. Abbreviations of weights and measures in common use will be counted each as one word.

Examples:

	Words.
Signatory (English)	1
Auf wiedersehen (*German*)	2
A bon marché (*French*)	3
Erba mala presto cresce (*Italian*)	4

[1] In the address of a message to one person, or to a firm, or to "Mr. and Mrs. ———," there are no extra words, but in the address of a message to either of two or more persons in the same place or town, as to "John Smith, or James Brown, 80 Wall Street, N. Y.," there are three extra words, viz, "or James Brown," which will be included in the count and charged for. (See Rule 47.)

[2] A message addressed, for example, to "W. Brown, 197 Broadway, and B. Wells, 60 Exchance Place, N. Y.," or a message addressed, for example, to "W. Brown and B. Wells, 197 Broadway," will in each case be charged for as two messages. A message addressed to "J. B. Jackson and S. B. Smith, Senate Chamber, Washington, D. C.," will be charged for as two messages. A message addressed to "Senators Jackson, Reid, and Preston, Washington, D. C.," will be charged for as three messages. The additional addresses will not be considered as extra words.

	Words.
El Corazón menda las carnes (*Spanish*)	5
Errare humanum est (*Latin*)	3
J G M Jones, jr	5
Van Dorne	1
McGregor	1
O'Connor	1
District of Columbia (or D. C.)	1
New York (or N. Y.)	1
New York State	2
St. Louis	1
East St. Louis	1
New Mexico (or N. M.)	1
Nova Scotia (or N. S.)	1
Lbs	1
Hhds	1
Cwt	1

In names of countries or counties all the words will be counted and charged for.

Examples:

	Words.
United States of Colombia	4
U. S. A	3
North America	2
Queen Anne County	3
Prince William Sound	3

All groups of letters, when such groups do not form dictionary words and are not combinations of dictionary words will be counted at the rate of five letters or fraction of five letters to a word. When such groups are made up of combinations of dictionary words, each dictionary word so used will be counted.

Examples:

	Words.
Ukugu (*artificial*)	1
Babelu (*artificial*)	2
Bacyzafyih (*artificial*)	2
Abycazfybgk (*artificial*)	3
Hhgga (*artificial*)	1
Doyou (*improperly combined*)	2
Canhe (*improperly combined*)	2
Allright (or alright) (*improperly combined*)	2
Housemate (*dictionary word*)	1

Figures, decimal points, and bars of division will be counted, each separately, as one word. In groups consisting of letters and figures each letters and figure will be counted as one word. (To prevent liability to error, numbers and amounts should be written in words and when not so written the receiving clerk will request that it be done. If the customer refuses to write the amounts in words, the message will be accepted as written and counted accordingly.)

Examples:

	Words.
A1	2
x9n8g	5
¾	3
74-¾	5
4442	4
44, 42	5
165 East 22d St	8

Exceptions:

A. M	1
P. M	1
F. O. B. (or fob)	1
C. O. D. (or cod)	1
C. I. F. or C. F. I. (or cif or cfi)	1
C. A. F. (or caf)	1
O. K	1
Per cent (or percent)	1

In ordinal numbers the affixes st, nd, rd, and th will each be counted as one word.

Examples:

	Words.
1st	2
2nd	2
3rd	2
4th	2

A number of inquiries have been received as to how to determine whether code words in telegrams filed for transmission are "dictionary" words; that is, words taken from the eight specified languages.

Patrons who desire to benefit by the use of codes are expected to see to it that their codes are made up of words taken from the specified languages, unless they are prepared to pay for their code words on the basis of the five-letter count. Any attempt by patrons to force the line to accept as one word a code word that could not properly be so accepted under the rule would be an attempt to evade the rule for the purpose of withholding from the line tolls to which it is entitled.

If there be any honest difference of opinion as to whether any given words are taken from one of the specified languages, the question will be referred to the chief signal officer of the division, who can readily settle the question by reference to the official vocabulary, and when so determined those interested will be properly advised and instructed for their future guidance.

Whenever a reputable patron insists upon the acceptance as one word of a code word that in the opinion of the local office should be subjected to the five-letter count, such code word may be accepted, charged for as one word, and transmitted, but the patron should be

immediately advised that the code word is questionable and that an additional charge thereon may subsequently be made, and requested to state from what language the code word has been taken. The matter should then be referred, through the usual channels, to the chief signal officer of the division for decision as to whether such words shall in future be subjected to the five-letter count.

When such questionable words are tendered by transient or irresponsible patrons they will be subjected to the five-letter count and charged for accordingly and the patron requested to leave his address and to state from what language the code word has been taken. He should then be informed that the matter will be referred to the chief signal officer of the division and that if the count be decided to be incorrect under the rules proper refund will be made.

NOTE.—Groups of letters must be transmitted in groups as written by the sender of the message and must not be divided, although counted and charged for as more than one word.

RULE 12.

Checks of commercial messages.

The receiving clerk's check upon a paid or collect message will be made in accordance with the following examples:

The check of a 10-word message to a "this line" office will be, for example: "10 paid 25" or "11 collect."

The check of a 10-word message to an "other line" office will be, for example: "10 paid 25 and 30 via Chicago" or "11 collect 25 via Chicago."

The check of a 10-word message for special delivery from a "this line" office when the delivery charges are known will be, for example: "10 paid 25 and $1 delivery" or "11 collect 25." (See note below.)

If the delivery charge be unknown the check will be, for example: "13 paid 31 report delivery charges," or "11 collect."

If the delivery charge from an "other line" office be, for example, 50 cents, and the "this line" and "other line" rates each 25 cents, the check will be: "10 paid 25 and 75 via Chicago," or "11 collect via Chicago." (The 75 includes the "other line" tolls and 50 cents for delivery.)

NOTE.—Offices connecting with "other lines" will note that in these checks the amount which indicates the "this line" tolls appears in the check before the amount for "other lines."

The check of a message containing words formed of pronounceable groups of more than 10 letters (see Rule 11) will indicate the number of words charged for as well as the actual number of words in the text, regardless of the number of letters of which the words are composed.

Example:

11/10 paid.

CHICAGO, ILL., *June 8, 1908.*

JOHN DOE, *New York:*

Frank Badafa Legend Dagama Track Andrew Mammallarked Incrusted Luminous Home.

RICHARD ROE.

In the above message there is one double word, viz: Mammallarked; and by indicating the fact in the check as noted controversy between the operators will be eliminated. Operators will transmit and copy the check in full.

RULE 13.

Night messages for other lines.

Night messages for "other line" offices will be accepted at the rate prescribed therefor by the other lines, but full day rates will be charged for the military lines. In night messages the word "night" will be inserted in the check and transmitted, but will not be charged for.

RULE 14.

Request to report delivery.

If the sender of a message request a notice of its delivery, the receiving clerk will insert in the check the words "report delivery." (See Rules 10 and 46.)

Repeated messages.

If the sender request a repetition of his message, the receiving clerk will insert in the check the words "repeat back," and will charge a half rate for the repetition, in addition to the rate for the message. (See Rules 10 and 27.)

In such instances the words "report delivery" or "repeat back," as the case may be, will be included in the count and charged for at full rate.

Service messages.

Service messages will not be sent free for the information of customers, nor to correct their errors, but no service message shall be delayed for any cause whatever, nor shall any office decline to furnish promptly and explicitly information called for in any received service message. Such requests and replies should, however, be as brief as possible.

Service messages will be given preference in every instance.

Copies of such service messages as appear to have been improperly sent will be referred to the chief signal officer of the division for inspection.

RULE 15.

Special delivery.

A message to be specially delivered beyond the free-delivery limits of the terminal office, and for which the delivery charge is not known, will be accepted upon the payment or guarantee of an amount sufficient to cover the telegraph tolls and the probable cost of delivery. The words "report delivery charges," when the charges are to be paid by the sender, or the words "delivery charges guaranteed," when they are to be paid by the addressee, will be inserted in the check of such message, and will be counted and charged for. (See Rules 8, 10, and 46.)

Service message on special delivery.

The service message reporting cost of delivery will not be charged for, but if a separate message be necessary to effect special delivery, a charge for a 10-word message will be made.

RULE 16.

Extra dates and forwarded messages.

Whenever a message which has come over another line is offered at a place not indicated as the proper place for such message to reach the military line; or whenever a message is received at any office by mail to be forwarded by telegraph; or in case a person other than the addressee, having received a message, request the same to be forwarded to another place without alteration of any nature; or if a person leave before the arrival of an expected message and it be forwarded to him—in each of these instances the name of the place where the message originated and the date will be counted and charged for as a part of the message. For example, if the following message should pass over another line from Skagway to Fort Egbert, or through the mail, or be received by any other person than the addressee by telegraph or mail, or should arrive by "this" line after the addressee had left town, and a request be made that it be forwarded to Valdez, it would be sent as follows:

SKAGWAY, ALASKA, *June 7*,
via FORT EGBERT, ALASKA, *June 8, 1908.*

JOHN DOE, *Valdez, Alaska:*

Meet me next Monday, at ten o'clock in the forenoon.

RICHARD ROE.

This message would be checked "14 paid 4 extra," thus adding in and charging for, as a part of the message, the four words "Skagway, Alaska, June 7."

When a message, which is to be forwarded, is a "received collect" message, the forwarding office will check it so that the tariff from

that office to destination shall appear in the check as "this line" tolls, and the tariff from the originating office to the forwarding office as "other line" tolls.

Suppose the tariff from Skagway to Fort Egbert to be 35 and 2, and from Fort Egbert to Valdez 25 and 2, and a 10-word message (as per above example) has been sent "collect" by Skagway to Fort Egbert, which the latter office is to forward to Valdez; Fort Egbert should check the message (counting four extra words), "15 collect 4 extra, 33 and 35." The "33" (tariff from Fort Egbert to Valdez) represents the "this line" tolls for 14 words and the "35" (tariff from Skagway to Fort Egbert) represents the "other line" tolls for 10 words. However, the term "other line" in this instance must not be interpreted to mean "other line" money, for all tolls accruing from such messages belong to "this line."

The term "other line" is used here to distinguish between the amount due from forwarding office to destination and that from the originating office to forwarding office. (Should other line tolls be also involved the total amount to be collected by the delivering office must be indicated in the check and transmitted.) A proper division of the actual other line tolls will, of course, be made by the offices concerned in such cases.

All such messages will be entered on the check report of the forwarding office in the same manner as other messages. They will be entered on the check report of the office making delivery as if the forwarding office were the point of origin.

The office ordering the forwarding will collect from the sender the tolls, including that for extra words necessary in forwarding instructions, from forwarding office to destination, and will enter on the bottom of the check report all items of this nature. (See Example 1.)

In case the forwarding office be also the office authorizing the forwarding, tolls to cover all charges, if a prepaid message, will be collected by that office and the delivering office will check and enter such messages on the check report showing the forwarding office as the point of origin. (See Example 2.)

(1)

10 paid. VALDEZ, *June 30, 1910.*

JOHN DOE, *Fairbanks.*

(Signed) RICHARD ROE.

If, upon receipt of this message at Fairbanks, it be found that the addressee has left and is reported to be in Nome, Fairbanks will so inform Valdez, who will, if the sender desire and prepay tolls, direct Fairbanks to forward "paid" to Nome. Valdez will collect all tolls; Fairbanks will check Valdez on the original message Valdez to Fairbanks; Nome will check Fairbanks on the forwarded message Fair-

banks to Nome; Fairbanks will enter the forwarded message on the check report and forward therewith a copy of the service ordering the forwarding. The office ordering the forwarding will also invoice the tolls.

(2)

10 paid. VALDEZ, *June 30, 1910.*
JOHN DOE, *Fairbanks.*

(Signed) RICHARD ROE.

If, upon receipt of this message at Fairbanks, it be found that the addressee has left and is reported to be in Nome and his agent desire to forward the message to Nome prepaid, Fairbanks will charge for the extra words necessary in forwarding from Fairbanks to Nome. Valdez will not be concerned, so Nome will check Fairbanks as originating office and Fairbanks will indicate on bottom of check report that the message was one forwarded to Nome and will remit to cover. The office ordering the forwarding will also invoice the tolls.

A copy of each service message ordering the forwarding of the message on which the forwarding office claims credit must be attached to the check report by the forwarding office and have indicated thereon the amount so claimed.

Messages must, in every case, show the place of origin and the date.

No employee will be permitted to act as agent for the sender and by so doing change the point of origin.

Under no circumstances will the State, month, or date be omitted from forwarded messages. The year will not be included.

Whenever it becomes necessary to forward to a new address, on other lines, messages originating at offices on the Military Cable and Telegraph System of Alaska, a charge for a 10-word commercial message over the military line will be made on the service message directing the forwarding.

These service messages must be prepaid and be as brief as possible. The sending office, in transmitting such service messages, will check them "paid service," indicating the number of words, but the minimum charge will be made, the number of words being indicated to insure against omission of any part of forwarding instructions.

No charge will be made on a service message directing the forwarding of a message to a new address on the military lines when the message to be forwarded is one originally filed at an office on the military lines, nor will any charge be made on a service message directing the forwarding of a message to a new address on the military lines when the telegram to be forwarded is one originally filed at an office on the other line. In these two instances the military line receives a compensation for forwarding the message. The service

message must always state whether forwarding charges are prepaid or to be collected, and the extra words must be carefully considered and charges made fully to cover.

No charge for these service messages will be made on account of other lines.

Foreign cablegrams to points on other lines can not be forwarded from the original destination, but if forwarded to points on "this line" the foregoing instructions and domestic message rate will apply.

RULE 17.

Official messages.

No message will be transmitted free except by orders from proper authority. By law, all official messages of the officers and agents of the several departments of the United States Government are transmitted free over the military telegraph lines when properly certified.

Whenever properly certified messages are presented for transmission and a doubt exists as to their being on official business, or the genuineness of the party presenting them, they will be transmitted and a copy submitted to the chief signal officer of the division.

In accepting official messages for transmission over the Washington-Alaska Military Cable and Telegraph System, it is essential that the following certificate be stamped or written on the message blank, when not already printed, and same signed by the sender of the message, who will also indicate his rank and department or bureau of the Government to which the message pertains:

I certify that the following telegram is on official business, and necessary for the public service, and will not bear the delay incident to the mails.

The following extract from General Orders, No. 180, War Department, Washington, D. C., October 26, 1905, will be furnished when necessary to each person mentioned on the list below as being authorized to send official messages over the Washington-Alaska Military Cable and Telegraph System. Others who may wish to send such messages will also be furnished a copy when necessary but their messages will not be transmitted until the orders of the officer in charge at Seattle, Wash., be received. Such matters will be submitted by telegraph to that official and instructions awaited before forwarding.

Official messages, orders regarding.

[Extract from General Orders, No. 180, War Department, Washington, Oct. 26, 1905.]

II. The requirements of paragraphs 1194, 1197, 1198, 1592, and 1593, Army Regulations, are held to be applicable to official telegrams sent over the United States military telegraph lines in Alaska and the Philippine Islands. These lines will be used only in cases of necessity, in which the delay consequent upon transmission by mail would be prejudicial to the public interest. In order to secure economy, officers are expected to observe the same degree of brevity in framing official messages as in the preparation of private telegrams.

The provisions of section 2, paragraph 1196, Army Regulations, with reference to the necessity of an officer submitting an explanation when it is questionable whether a telegram is on official business, or whether the telegraph should have been used, are extended to telegrams sent over military telegraph lines in Alaska and the Philippine Islands. In case such explanation is not satisfactory, the officer filing the telegram will be charged therefor at the authorized commercial rates.

Division and department commanders are charged with the duty of scrutinizing telegrams received by them, in order to enforce compliance with the provision of this order. (1063454, M. S. O.)

By order of the Secretary of War:

ADNA R. CHAFFEE,
Lieutenant General, Chief of Staff.

Official:
F. C. AINSWORTH,
The Military Secretary.

Necessity for brevity.

The volume of official telegraphic correspondence transmitted over the Military Cable and Telegraph System of Alaska has grown to such proportions as to necessitate strict compliance with regulations and instructions governing the preparation of messages. These require that the telegraph be used only in cases of necessity in which the delay consequent upon transmission by mail would be prejudicial to public interests, that only such words be sent as are necessary to a clear understanding of the message; and enjoin the use of the War Department code.

Use of codes and method of counting words.

Regulations of the Signal Corps and of the commercial telegraph companies now require that groups of letters that do not form words from one of the following languages: English, German, French, Italian, Dutch, Portuguese, Spanish, and Latin, and that are not combinations of words from these languages, be counted and charged for in messages at the rate of five letters, or fraction of five letters, to a word.

The five-letter count also applies to groups of letters forming artificial words and to groups of letters made up of combinations of misspelled or abbreviated words.

As all code words in the War Department Telegraphic Code are composed of six letters and consequently are rated as the equivalent of two words in the reckoning, this code should be used only when an actual saving can be made or secrecy be desired. It is therefore directed that care be used in the preparation of official telegrams for transmission over the lines of the commercial companies as well as the Military Cable and Telegraph System. The foregoing does not apply to foreign cablegrams.

The department commander has directed that the officer in charge Washington-Alaska Military Cable and Telegraph System shall call

to his attention any violations of the above, in order that he may decide whether payment from the sender of messages in violation of the provisions of this order shall be required.

Persons authorized to send official messages.

Messages relating to public business from the following persons will be sent without charge when certified as above:

The governor of Alaska.

The secretary of Alaska.

Judges of the United States courts.

Clerks of the United States courts.

District attorneys and assistant district attorneys.

United States marshals and deputy United States marshals when in charge of offices or when in reply to official messages.

United States commissioners and assistant commissioners.

Collectors and inspectors of customs, and deputy collectors and inspectors when in charge of offices or when in reply to official messages.

Special agent, Department of Agriculture, and his authorized assistants when in charge of offices or when in reply to official messages.

Superintendents of schools.

School teachers communicating with superintendents only.

Collector of internal revenue, and his deputies when in charge of offices or when in reply to official messages.

Immigration inspector, and his authorized assistants when in charge of offices or when in reply to official messages.

Postmasters, only in the strictest legitimate business of the department.

Officials in charge of the United States Coast and Geodetic Survey.

Officers of the Revenue-Cutter Service.

Officials of the Government departments and bureaus of the United States.

Alaskan road commission and its authorized agents.

Railway Mail Service and authorized agents (not including mail contractors or carriers).

Employees Alaska school service, when for Commissioner of Education, Washington.

Supply and disbursing office or chief of Alaska Division, Seattle.

Special authority to be obtained for official messages from persons other than above.

Special authority must be obtained from the Chief Signal Officer of the Army or division before accepting for transmission as official business messages from persons not included in the foregoing list.

It has been held by the Post Office Department that messages referring to registered letters and other mail matters sent on the

request of individuals are not properly official buisness and should be paid for at commercial rates by the persons interested.

Answers to commercial messages may be accepted as official.

Messages in answer to commercial messages may be accepted as official messages when properly certified (See par. 1208, Army Regulations, 1910.)

Answers to official messages.

Messages in answer to official messages will be accepted and transmitted as official business when the telegrams to which they are answers are presented. They will invariably be sent "Collect Government, answer" when for transmission over commercial lines.

Messages to Signals or Cashier.

Messages for the chief signal officer of the division, officers in charge of the line, and operators in charge at the different stations will invariably be addressed to "Signals" and not to the officer or enlisted man by name. At points where cashiers are on duty messages pertaining to accounts will be addressed to "Cashier."

Other line tariff on official messages.

The rates on Government messages over the commercial lines in the United States are announced annually by the Postmaster General, and are published in the tariff books of the commercial companies.

RULE 18.

D. H. messages.

Free messages known as "D. H." messages will be transmitted only when authorized by the chief signal officer of the division or the Chief Signal Officer of the Army. All such messages must be brief, not to exceed 20 words in length, except in extraordinary instances, when they may be extended to cover a few extra words. All D. H. messages will be written in plain English, and must be signed in full or by surname of sender. Messages pertaining to leaves of absence and furloughs may be accepted deadhead, but other line tolls must be considered.

All deadhead messages will, except in emergent cases, be limited to two per month and answers thereto, and while the limit is usually 20 words, efforts should be made to make the messages as short as possible.

Messages to be mailed.

The telegraph will be used only in the case of urgency, and D. H. messages of little or no importance will not be transmitted. Messages to be mailed at destination must have postage paid thereon at time of filing. Such messages will be checked "D. H. and 2 mail." Postage will be accounted for as directed in Rule 65. Deadhead messages for city delivery in Seattle, unless addressed to a Government office or to be called for, should bear postage.

Abuses of privilege.

Any abuse of the foregoing privileges will be reported to the chief signal officer of the division.

Sending office held responsible.

The sending office will be held accountable for the usual tariff charges on messages not covered by this and the preceding rule.

Service messages not free messages.

Service messages will neither be regarded nor reported as free messages.

Value of free messages to be computed.

The value of every free message sent over the military lines, including those covered by Rule 17, will be computed at the ordinary commercial rate and reported in the monthly message report. (See instructions on Form 134.) In computing the value of free messages the body of the message only will be considered; that is, the value will be based on the commercial count.

RULE 19.

Tariff on commercial and press messages.

The tariff of commercial and press messages will be announced in tariff sheets by the Chief Signal Officer of the Army, or by his authority. No modifications or concessions in the rate will be made by any other authority.

RULE 20.

Profane or obscene messages.

Messages containing profane or obscene language will not be accepted for transmission.

CHAPTER IV.

OPERATING DEPARTMENT.

RULE 21.

Official calls.

An operator, when calling an office, will sign his own office call at short intervals, and will also sign it in answering calls. All calls should be answered promptly.

Number sheets.

The time at which calls are made will be registered on the back of the operator's number sheet. Number sheets will be dated and the offices will be written out in full.

RULE 22.

Numbering messages, etc.

The sending operator will number each message to the office to which he sends it, and will write after the number the call of that office, followed by his own signal, the receiving operator's signal and the time of transmission, in the order named.

Messages bearing back dates.

In transmission of a message bearing a back date, the date of forwarding will be indicated by encircling, thus (17), which will be indorsed immediately after the time of transmission.

Acknowledgment of receipt.

No telegram will be regarded as transmitted until acknowledged by the usual signal; but if a number of telegrams be sent in succession, the acknowledgment of the last may be regarded as an acknowledgment of all.

Sending operator to regulate speed of transmission.

The sending operator will regulate the transmission of a message to suit the ability of the receiving operator.

Comparison of numbers, etc.

It is of great importance that message numbers should be correct and be accurately recorded. Operators at both ends of the wire should always act upon the theory that missing numbers indicate lost messages, and should call the attention of the chief operator to each case. The receiving operator should never mark off a number without first seeing the message which bears it. Sent messages should be carefully examined as often as practicable to ascertain whether they are properly timed and the numbers correct.

RULE 23.

Order of transmission.

In sending a message, the operator will observe the following order of transmission:

1. The number of the message.
2. The check of the message.[1]
3. The place from and the date of the message.
4. The address of the message.
5. The body and signature of the message.

Copy to be followed.

No alterations will be made. In case of a relayed message, any apparent errors should be brought to the attention of the receiving operator for verification before transmission to the next office.

Sending operators will not transmit the titles "Mr.," "Messrs.," and "Esq." when they appear in the address of a telegram.

The prefixes "Mrs.," "Miss," and any distinctive title such as "Gen.," "Hon.," etc., however, should be transmitted whenever they form part of the address.

The suffix "th" when used in the address of a message is frequently rendered "8" (for example, 242 West 9th St., rendered 242 West 98 St.). To obviate errors of this kind, operators will not transmit "th" following a figure in the address of a message.

RULE 24.

Transmission of checks and "other line" tolls.

All the figures and words in the check of a telegram will be transmitted, except the word "paid" and the amount of tolls in case of a prepaid telegram to a "this line" office. Should, however, any "collect" telegram from an "other line" office reach destination without the amount of tolls in the check, the office of destination will still be held for both "this" and "other" line tolls. The omission of tolls in check will not be a sufficient reason for failure to collect the correct rate.

Government messages.

In Government messages which pass in part over commercial lines, the words "paid" or "collect" must be transmitted in the check.

RULE 25.

Cause of delay to be noted and reported.

When for any reason an operator can not transmit a message promptly, he will note the cause of delay upon the back of the mes-

[1] The number of words given in the check of a message, accepted by the receiving clerk, will under no circumstances be altered by an operator. The inaccuracies will be brought to the attention of the receiving clerk for correction; neither will a check on a relayed message be altered without the authority of the sending office.

sage and will report the facts to the chief operator or operator in charge.

When from any cause a congestion of business occurs chief operators and operators in charge should put forth every endeavor to expedite the forwarding of the more greatly delayed business, and to this end an exchange of messages should be arranged alternately between the relay offices.

Inability of operator not a reason for failure to transmit.

The inability of an inexperienced operator to receive rapidly will not be deemed a sufficient reason for failure to transmit a message to him.

When messages can not promptly be transmitted; collection of tolls on mailed messages, etc.

Whenever through messages in course of transmission are stopped at a relaying office in consequence of an interruption of the line, and they can be forwarded to destination or to the next relaying office by mail with greater dispatch than would be the case if held until repairs to the line are effected, they will be mailed to the operator in charge at destination, or to the next relaying office where communication can be had to destination. A copy of each message forwarded in this manner will be retained by each relaying office so forwarding. At the time of mailing the forwarding office will enter each message on a messenger's delivery sheet by number and mail to the operator in charge at destination or the next relaying office, who will, upon receipt of the message, acknowledge receipt of each by signature, time, and date. He will then return the delivery sheet to the forwarding office. Full tolls will be collected on all such messages, for by complying with Rule 5 the line will have performed its services in good faith. Upon the restoration of communication the message will be sent by telegraph, inserting on the check the words "Copy of message mailed on (date)." The offices concerned will ascertain the number of messages mailed during the interval of interruption, and if all have not been received the forwarding office will transmit them by wire. The office at destination or the next relaying office will, in such case, file without delivery the messages which may later be received by mail.

RULE 26.

Messages to more than one address.

When a message is addressed, for example, to "A or B," for delivery to either, it will be transmitted as a single message. When a message is addressed, for example, to "A and B," or to several persons, for delivery to each of them, the manner of its transmission will be determined by the chief operator of the sending office, so as to use the facilities at his command to the best advantage. (See Rules 10 and 47.)

RULE 27.

Transmission of repeated messages.

Special care will be observed in sending and receiving a message requiring repetition, which should be from point of origin to destination. At the office of origin and at each repeating office an operator, upon receiving back a repeated message, will carefully compare it with his copy, underlining or checking each word, and, if the repetition be found to be correct, he will write on the back of the message the words "Repeated back O. K.," with his personal signal and the personal signal of the operator who repeated back the message.

Telegraphic money transfers (Alaska only).

In transmission of telegraphic money transfers the following will be repeated back: Number of the certificate, name of payee, amount transferred, and name of payer. The same action will be taken in reporting the issue of the certificate. (See Chapter IX.)

RULE 28.

Duplicate transmission.

If, to correct an error in a message or for any other reason, a second transmission becomes necessary, the sending operator will begin the second transmission with the word "Duplicate," which word the receiving operator will write conspicuously on the form above the message. A new number will be given and new marks of transmission will be recorded thereon.

In such cases the date of filing, as well as the date of duplication, will be transmitted and copied. (See Rule 22 concerning back dates.)

This rule does not apply to messages which are duplicated immediately on request of the receiving operator on account of some cause making a second transmission necessary.

RULE 29.

Messages to be sent on date of filing.

An office which is not kept open all night will before closing transmit its messages to their destination or to the nearest relaying office. The relaying office will forward all messages to their destination before closing. If, for any reason, any be left over until the next morning, they will be transmitted before new business, under the original date of filing. The date will not be changed to that on which forwarded. The date of forwarding will, however, be indicated. (See Rule 22.)

Relay offices to clear before giving "good night."

Relaying offices will clear all business for offices which do not keep open all night before giving such offices "good night," after which messages therefor will not be accepted from the public at the relaying

office except with the understanding that they will be transmitted under date of the day following. Messages for such points from other offices will be accepted in the usual manner.

RULE 30.

Order in which messages are to be received.

In receiving a message the operator will write the number of the message, the call of the sending office, sending operator's and his own personal signal, and the check of the message in the space above the words "Received at." He will write the name of his office immediately after and on the same line with the words "Received at," and the time of receipt also on the same line or immediately over the check. The acknowledgment of receipt will be made by transmitting the signal "O. K." and the receiving operator's personal signal and office call. If the message bear a back date, the date of receipt must also be written thus: "11–17." The last date indicates the date of receipt.

RULE 31.

Verification of checks, etc.

The receiving operator will count the words, verify the check, and otherwise satisfy himself that the message is correct. He will also see that his copy is legible and not liable to be misread. He will challenge all words that appear doubtful, and when confirmed by the sending operator they will be underscored.

New number to be given postponed corrections, etc.

If for any reason a message can not be promptly completed or correction made, the number and time of receipt will be erased and the sending office will assign the number to the next message transmitted. When corrections shall have been accomplished, a new number and new time of receipt will be given.

A telegraph blank upon which a received message has been written, in whole or in part, must not be destroyed under any circumstances. When a telegram is to be canceled the word "cancel" with the reason and the operator's signal should be written across the face of the blank, which should then be placed on a sent business file. The operator who cancels a telegram must see that the number is filled in. The canceled message will be filed in a jacket labeled "canceled business" and placed with the day's business.

RULE 32.

Operators not to refuse messages.

No operator will refuse to receive any message offered by an operator at another office. Should there be any doubt as to the propriety of a message, it will be accepted and a copy submitted to the chief signal officer of the division.

Contention for circuit.

Contention for circuit is positively forbidden.

Operators' signals.

No operator will change his personal signal without the consent of the operator in charge or chief operator, nor will any two operators in the same office use the same signal.

RULE 33.

No admittance to operating rooms.

The operator in charge or chief operator will refuse to admit to the operating room any person not an employee under his own direction, except when permission to enter has been given by the officer in charge or other competent authority.

Chief operator and operators in charge.

At offices where officers are in charge, the senior noncommissioned officer detailed to perform the duties of a chief operator will be designated "chief operator;" and at offices where there be no officer and the senior noncommissioned officer in charge performs all the functions of the office, he will be designated "operator in charge."

RULE 34.

Official correspondence by wire.

Official correspondence by wire will be limited to matters of an urgent nature that will not bear the delay incident to the mails. The mails shall be used for all correspondence that will not suffer by delay.

RULE 35.

Privileges not to be abused.

The transmission by wire of messages or notes free of charge for friends and acquaintances of operators or other employees is not permissible; neither will operators or others in the military service pervert to improper use the privileges granted in Rule 18.

RULE 36.

Wire tests.

The operator in charge at a testing office will make early morning tests of the wires and see that the necessary orders to linemen are given and acted upon without delay. He will make every effort to have the circuits ready for business at the opening hour.

Directions to linemen.

In giving directions to linemen, care will be taken to definitely locate the trouble, and to state its nature as accurately as possible.

Right of circuit for "wire."

The word "wire" will be recognized as giving the right of circuit at all times for testing purposes.

Office diary.

The operator in charge, or the chief operator of the principal offices, will keep a daily record of all interruptions and incidents which occur in the working of the lines. In making entries, the time of tests, interruptions, removal of faults, etc., will always be stated; also all information that may be of value for future reference. Offices will not be referred to by their calls.

RULE 37.

Ground wire.

The ground wire at intermediate offices will be used only in the event of an interruption of the circuit, and then only to notify the chief or testing operator concerning the interruption and to receive his instructions.

RULE 38.

Instruments to be cut out at night.

Before closing an office temporarily, or for the night, its instruments will be cut out, care being taken that the circuit through the switch or cut-off is complete.

RULE 39.

Office hours, etc.

At offices where there are two or more operators on duty, meal hours will be arranged so that a sufficient force shall be on duty at all times.

At offices where there are two or more operators on duty, the hours of duty will be so arranged that, under ordinary circumstances, seven hours shall constitute a day's work for each man.

A reduction of one-half hour will be arranged for night work. When necessary, these hours of duty will be extended to meet the demands of the service.

RULE 40.

Order of priority.

Official and military messages will have precedence. Subject to modification in orders from the War Department, or by order of the commanding general of the Army in the field, important dispatches will be usually sent in the following order of priority, due regard being had to the relative urgency of messages in the same class:

First. Those relating to the movement or administration of the Army in the field, and of the Navy.

Second. Other messages relating to the Army, to the Navy, and to governmental departments or bureaus of the United States.

Third. Messages of State, Territorial, or other civil officials relating to public business.

Fourth. Messages between diplomatic agents of neutral governments.

Fifth. Press messages.

Sixth. Miscellaneous business, those relating to death or serious illness having priority.

Unimportant dispatches of any class must not, however, be given precedence over important dispatches of a subordinate class.

Dispatches injurious to public interests.

Dispatches containing matter deemed to be injurious to the public interests must be submitted to the commanding general for his orders relative to their transmission. On detached lines such messages will be submitted to the senior officer or noncommissioned officer for his action.

RULE 41.

Testing instruments.

Where the importance of the office justifies, means will be provided for making regular tests of the electrical condition of the lines. Reports of the tests will be sent to the chief signal officer of the division, or the officer in charge, as the case may be. Detailed instructions for making these reports will be given on the blank form provided for that purpose. Instructions for making tests may be found in Signal Corps Manuals Nos. 3 and 4.

RULE 42.

Care of batteries; weekly examination to be made by operator in charge.

The operator in charge of an office where the main batteries are located will be held strictly responsible for the good condition of these batteries at all times. Batteries will never be wholly taken down, but will be cleaned and renewed by sections. The cleaning and renewing of batteries will always be timed so as not to interrupt communication or in any way interfere with the efficiency of the lines. Chief operators will see that this paragraph is strictly complied with, and to that end will give fully the necessary instructions.

The operator in charge will examine personally, each Saturday, the batteries in use and cause the cells to be carefully wiped off with a moist cloth. Should any cell be found to leak or to be otherwise defective, it will be at once removed and repaired or replaced. The binding screws and the ends of the small connecting wires in batteries will be kept scrupulously clean, to insure good connections, and the cells kept at least 1 inch apart, to prevent contact. The cells should rest on a painted, dry, wooden base to insulate them from each other and from the earth, and care be taken to prevent any escape of liquid by which a connection might be formed between the jars.

No battery will be permitted to freeze, for while frozen the current is very much impaired or altogether suspended. Heat being a promoter of chemical action, a battery while warm works most vigor-

ously. In a very warm climate, however, it should be kept in a cool place to reduce evaporation and unnecessary waste of material.

Fresh water will be added as often as necessary to keep the zincs in gravity cells completely immersed at all times, and blue vitriol should be dropped into the jar as it is consumed, care being taken that it goes to the bottom. The blue color will be kept as high as the top of the copper, but must never reach the zinc. When the quantity of sulphate of zinc in solution becomes too great, a portion of the top of the liquid will be drawn with a syringe and replaced with clean water. A hydrometer is convenient to test the strength of this solution. When the specific gravity is less than 15° there is too little sulphate of zinc; when it is 30° or over there is too much in solution, and it should be diluted. When the zincs become coated so as to interfere with the action of the battery they should be taken out, scraped clean, and washed. A zinc should last at least two months. A main line battery should not consume more than 1½ pounds of sulphate of copper per month per cell and a local not more than 2 pounds per month.

See Signal Corps Manual No. 3 for additional information relative to storage batteries.

Magnet bars on relays and sounders, and wire connections, underneath, to be examined.

The inside of magnet bars on relays and the underside of same on sounders, as well as the ends of iron magnet cores, should be examined frequently and the rust which forms removed; also the fine-wire connections under relays and sounders should be scraped clean several times during the year, as these fine-wire connections corrode very fast and prevent good working of the line on account of increased resistance.

Switchboards.

Switchboard plugs and plug holes should be kept bright and clean at all times so as to insure good connections. Switchboards should be watched very closely in moist climates, as the copper strips that connect on the back of the board corrode, and this corrosion forms a mineral solution by the chemical action of the air which impregnates the woodwork and is deposited therein as metallic copper, which causes more or less of a cross between the strips. Cases have occurred where the efficiency of the line was badly impaired from this cause. When such cases in switchboards appear it should be reported to the officer in charge for replacement or repair, as the case may require.

Lightning arresters.

The lightning arresters should be kept clean and free from dirt or moisture and will invariably be taken apart and examined after a thunderstorm.

RULE 43.

Special signals.

The following special signals are authorized:

1. Wait a moment.
4. Start me, or, where.
5. Have you anything for me?
7 or 77. Message for you.
9. Important military message, give way.
13. Do you understand?
92. Deliver (ed).
25. Busy on other wires.
27. Adjust your magnet.
30 or N. M. Circuit closed or no more.
44. Answer quick.
73. Accept compliments.
18. What is the matter?
Wire. Test, give way.

Operators will in all cases give way for signal 9, and for "wire."

Authorized abbreviations.

The following abbreviations are authorized:

Ahr.....Another.
Ans.....Answer.
Ck.....Check.
D H.....Deadhead.
G A.....Go ahead.
G E.....Good evening.
G M.....Good morning.
G N.....Good night.
G R.....Government rate.
N M.....No more.
O B.....Official business.
O K.....All right.
Opr.....Operator.
Qk.....Quick.
Sg.....Signature.
Wo.....Who.

Telegraph alphabet.

LETTERS.

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

NUMERALS.

1	· — — — ·	· — — — —
2	· · — — · ·	· · — — —
3	· · · — — ·	· · · — —
4	· · · · —	· · · · —
5	— — —	· · · · ·
6	— · · · ·	— · · · ·
7	— — · ·	— — · · ·
8	— · · · ·	— — — · ·
9	— · · —	— — — — ·
0	— — —	— — — — —

PUNCTUATIONS, ETC.

	Morse.	Continental.
Period	- - — — - -	- - - - - -
Colon	— - — - -	— — — - - -
Semicolon	- - - - -	— - — - — -
Interrogation	— - - — -	- - — — - -
Exclamation	— — — -	— — - - — —
Fraction line	-	
Dash	— - - - — - -	
Hyphen	- - - - - — - -	— - - - - —
Pound sterling	- - - - - - — - -	— - — - -
Capitalized letter	- - - - — - -	
Colon followed by quotation	— - — - - — -	
Dollar mark	- - - - — - -	— - - - — - -
Decimal point	Spell "dot."	- — — -
Comma	- — - —	- — - — - —
Paragraph	— — — —	
Underline (begin)	- - — - - — - -	- — - - - — - -
Underline (end)	- - — - - — — - — -	- — - - - — - - - — - -
Parenthesis (begin)	- - - - - - — -	— - — - — - —
Parenthesis (end)	- - - - - - - - - -	— - — - — - — - — - —
Quotation marks (begin)	- - — - - — -	- — - - — -
Quotation marks (end)	- - — - - — - — -	- — - - — - - — -
Quotation within a quotation (begin)	- - — - - - — - -	
Quotation within a quotation (end)	- - — - - - - -	
Apostrophe	- - — - - - — - -	- — — — — -

COMMON ABBREVIATIONS.

[In use in United States telegraph services.]

Abt_____About
Af_____After
Agn_____Again
Amn_____American
Amt_____Amount
Anr_____Another
Ar_____Answer
Arv_____Arrive
Atk_____Attack
Atl_____Atlantic
Awa_____Away
Awi_____Awhile
Ax_____Ask
Ay_____Any
B_____Be
Bal_____Balance
Bd_____Board
Bdl_____Bundle
Bf_____Before
Bg_____Being
Bn_____Been
Bot_____Bought
Bro_____Brother
Bk_____Break or back
Bt_____But
Btn_____Between
Btr_____Better
Bu_____Bushel
Byd_____Beyond
Bz_____Business
Bat_____Battery
Bbl_____Barrel

C_____See
Ca_____Came
Cg_____Seeing
Chg_____Charge
Cr_____Care
Ct_____Connect
Cty_____City
Cvl_____Civil
Cx_____Capital letter
Col_____Collect
Ck_____Check
Da_____Day
Dd_____Did
Deg_____Degree
Dld_____Delivered
Dr_____Doctor
Drk_____Dark
Dux_____Duplex
D. H_____Deadhead
Ea_____Each
Ed_____Editor
Eng_____Engine
Etc_____Et cetera
Ev_____Ever
Evn_____Even
Exa_____Extra
Fl_____Feel
Fld_____Field
Flg_____Feeling
Flo_____Flow
Flt_____Felt
Fm_____From

Fri_____Friday
Frt_____Freight
Gr_____Ground
G. B. A___Give better address
G. A_____Go ahead
G. S. A___Give some address
G. M_____Good morning
G. E_____Good evening
G. N_____Good night
Gen_____General
Ger_____German
Gg_____Going
Gu_____Guard
Gv_____Give
Gvg_____Giving
Hb_____Has been
Hhd_____Hogshead
Hld_____Held
Hlm_____Helm
Hm_____Him
Hnd_____Hundred
Hon_____Honorable
Hpn_____Happen
Hqrs_____Headquarters
Hr_____Here
Hs_____His
Hu_____House
Hv_____Have
Hw_____How
Ify_____Infantry
Imp_____Import
Ix_____It is
Ixu_____It is understood
Kp_____Keep
Kpg_____Keeping
Kpt_____Kept
Kw_____Know
Kwg_____Knowing
Kws_____Knows
Las_____Last
Lat_____Latitude
Lft_____Left
Lit_____Little
Lk_____Like
Lt_____Lieutenant
Lv_____Leave
Lvg_____Leaving
Lvs_____Leaves
Lyg_____Lying
Ma_____May
Mab_____May be
Maj_____Major
Mar_____March
Mas_____Master
Mat_____Material
Max_____Maximum
Mch_____Machine
Mcy_____Machinery
Md_____Made
Mem_____Member
Mfd_____Manufactured
Mgr_____Manager
Mh_____Much
Mil_____Military
Min_____Minute
Mk_____Make
Mkg_____Making
Mkr_____Maker
Mks_____Makes
Mkt_____Market
Ml_____Mail
Mng_____Morning
Mny_____Many
Mo_____Month
Mon_____Money
Mrl_____Marshal
Msg_____Message
Msk_____Mistake
Mst_____Must
Mv_____Move
Myn_____Million
Na_____Name
Nd_____Need
Nec_____Necessary
Neg_____Negative
Ni_____Night
No_____No, and New Orleans
Nun_____None
Nv_____Never
Nw_____Now
Nx_____Next
N. M_____No more
Ofc_____Officer
Ofr_____Offer
Ofs_____Office
Opr_____Operator
Ot_____Out
Otr_____Other
Ov_____Over
O. K_____All right
Pc_____Per cent
Pd_____Paid
Ph_____Perhaps
Pha_____Philadelphia
Pm_____Postmaster
Po_____Post office
Pod_____Post Office Department
Pot_____President of the

Potus.....President of the United States
Pr.....President
Pra.....Pray
Prt.....Part
Pt.....Present
Qk.....Quick
Qmg.....Quartermaster General
Qr.....Quarter
R.....Are
Rc.....Receive
Rcd.....Received
Rcg.....Receiving
Rcr.....Receiver
Rcs.....Receives
Rct.....Receipt
Rek.....Wreck
Rht.....Right
Rlf.....Relief
Rp.....Report
Rpt.....Repeat
Rr.....Railroad
Ru.....Are you
Ruf.....Rough
Ry.....Railway
Sa.....Senate
Scotus....Supreme Court of the United States
Sd.....Should
Sdn.....Sudden
Sec.....Section
Sed.....Said
Sem.....Seem
Sen.....Seen
Sh.....Such
Shf.....Sheriff
Shl.....Shall
Sig.....Signature
Sik.....Sick
Sis.....Sister
Slf.....Self
Slo.....Slow
Slr.....Sailor
Sm.....Some
Sma.....Small
Sn.....Soon
Snc.....Since
Snd.....Send
Snr.....Sooner
Snt.....Sent
Sor.....Soldier
Sp.....Ship
Spfy.....Specify
Spl.....Special
Spo.....Suppose
Ss.....Steamship
St.....Street
Sta.....State
Stn.....Station
Sto.....Store
Str.....Steamer
Sur.....Surround
Sv.....Seven
Svc.....Service
Svd.....Served
Sve.....Serve
Svg.....Serving
Svl.....Several
Swo.....Swore
Sx.....Dollar mark
Sy.....Say
S. Y. S....See your service
T.....The
Tan.....Than
Tg.....Thing
Tgh.....Telegraph
Tgm.....Telegram
Tgr.....Together
Tgy.....Telegraphy
Th.....Those
Thk.....Thank
Tho.....Though
Thr.....Their
Ti.....Time
Tk.....Take
Tkg.....Taking
Tkn.....Taken
Tkt.....Ticket
Tlk.....Talk
Tm.....Them
Tn.....Then
Tnd.....Thousand
Tni.....Tonight
Tnk.....Think
Tr.....There
Tru.....Through
Ts.....This
Tse.....These
Tt.....That
Ttt.....That the (5)
Tuf.....Tough
Tw.....To-morrow
Ty.....They
U.....You
Uc.....You see
Un.....Until
Uni.....United
Upn.....Upon

Ur.....Your
Urg.....Urge
Val.....Value
Vy.....Very
W.....With
Wa.....Way
Wat.....Water
Wd.....Would
Wea.....Weather
Wg.....Wrong
Wh.....Which
Wi.....Will
Wit.....Witness
Wl.....Well
Wlk.....Walk
Wn.....When
Wnt.....Want
Wo.....Who
Wom.....Whom
Wos.....Whose
Wr.....Were
Ws.....Was
Wt.....What
Wu.....Western Union
Wy.....Why
Y.....Year
Ya.....Yesterday
4.....Please start me, or, where
5.....Have you anything for me
9.....Important official message
13.....Understand
25.....I am busy now
30.....No more
73.....Accept best regards
77.....Message for you
92.....Deliver

"Wire"—Give instant possession of line for test.

The use of the foregoing abbreviations in transmitting the text of messages over the Signal Corps lines will not be permitted.

RULE 44.

To save time of clerks and operators in the preparation and transmission of service messages, the following code will be used:

SERVICE MESSAGE CODE.

Code word.	Meaning.	Example.
Cancel	Cancel and file	Our 41, New York (date), Briggs, signed Hooper, cancel.
Collect	Collect there, payment refused	Your 75, Chicago (date), Weld, signed Patterson, collect.
Colunk	Collect there, addressee unknown	Your 31, Buffalo (date), Henry W. Gerrish, 21 Monmouth Street, East Boston, signed Gerrish, colunk.
Deld	Delivered O. K	Yours 117 of 31st, Wilson, deld.
D. F. S	Disregard former service	
Dup	Duplicate quickly from original, word not understood.	Your 91, Armour (date), tenth Abhor, dup.
G. B. A	Give better address. Unknown at address given. Not in directory.	Your 94, N. Y. (date), Wm. Newcomb, 31 Broad Street, signed Foss, G. B. A.
H. A	Hurry answer	Our 83 (date), Price, McCormick, signed Jones, H. A.
H. C	Hurry press check	Transcript 30th, H. C.
Locked	Place closed. Will deliver soon as open.	Your 94, Hartford (date), Conkling, signed Franch, locked. (Service messages reporting nondelivery to business houses that are closed for the day are unnecessary. See Rule 52.)
Missing	Missing number, describe	Your 16 (date) missing.
Ornord	Original not received. Have delivered duplicate with explanation. Please trace.	Your 90 (date), Chicago, Swift, Boston, signed Swift, ornord.
R. F. O	Repeat from original. Message not understood.	Your 204 (date), Boston, Smith, signed Henry, R. F. O.
S. O. S	See our service	
S. Y. S	See your service	
Try	See your (insert number of service message). Try to deliver at.	Your 42 (date), try 37 South Street.
Undeld	Undelivered. Addressee said to have left.	Your 38, St. Louis (date), F. H. Webster, signed James, undeld.

CHAPTER V.

DELIVERY DEPARTMENT.

RULE 45.

Messages to be copied, etc.

Each message for delivery will be numbered, copied, and inclosed in the proper envelope, which will be sealed and plainly addressed in ink.

Collection of tolls.

When tolls are to be collected, the amount, in figures, will be written in ink upon the envelope, and also upon the messenger's delivery sheet. Credit is not authorized.

"Other line" collect messages.

Should any collect message from an "other line" office reach destination without the amount of tolls in the check, the office of destination will still be held for both "this" and "other" line tolls, the omission of tolls in check not being a sufficient reason for failure to collect the correct rate.

Delivery register.

Messages received for delivery will be entered on Form 136 in the order of their receipt.

RULE 46.

Instructions of the sending office as to delivery to be observed.

Instructions from the sending office in regard to the delivery of a message should be carefully observed. If the address on the message received be at variance with that registered in the book of addresses, the address of more recent date will be tried first.

Report of delivery.

A request to "report delivery" (see Rule 14) will be answered by a collect message, stating the time of delivery, or, if not delivered, the reason why. A request to make the check D. H. of a collect service message will not be complied with. An office receiving a collect reply to a request to "report delivery," "get answer," etc., may, however, for sufficient reason, refer the case to the chief signal officer of the division for adjustment. Requests for reports of delivery and replies thereto are charged the full number of words contained in such messages, and the charge will be made for both inquiry and reply.

RULE 47.

Messages addressed to more than one person.

When a message addressed, for example, to "A" or "B" is received, it will be delivered to either one or the other of the addressees. (See Rules 10 and 26.) It should not be delivered to both addressees.

RULE 48.

Messages requiring answers.

When a message requires an answer, the letter "X" will be plainly written on the envelope, and the messenger will be instructed to make diligent effort to obtain such answer. Should he fail to obtain it, he will report the reason to the delivery clerk. Messengers will, in all cases, be supplied with the proper blanks on which answers can be written.

The letter "X" will be placed in the check of each message to which an answer is desired, this letter "X" to immediately follow the usual check, thus: 10 X, or, 10 collect X.

Receiving clerks will place the letter "X" in the check and operators will transmit and copy it.

Delivery clerks will observe the checks of all messages for delivery and place a letter "X" upon the envelope of each message bearing this signal. They will also place the letter "X" upon the delivery sheet opposite the number of the message and see that all proper efforts are made to get a reply.

Delivery clerks should instruct all messengers and make sure that they understand that the letter "X" upon the envelope means that the sender of the message desires a reply. Messengers must always ask the person to whom any message is delivered if he wishes to send an answer, but they should be specially careful to report to the delivery clerk the reason for any failure to obtain a reply to a message marked "X." Messengers will familiarize themselves with the rates, routes, and rules in force.

Destruction, delay, or disclosure of contents of message, etc.

The willful disclosure or change of the contents of any message, or the destruction or delay of a message, is a violation of law, punishable by fine and imprisonment. Operators and all other employees are cautioned accordingly.

No message, Government or private, will be made public, except by proper authority, and under no circumstances will the contents of any message be divulged by anyone except to the proper authorities through official channels.

A private message, after it has been delivered, becomes the property of the addressee. After a message has been delivered to a telegraph or telephone company, the responsibility rests with the company concerned, but in no case will even the fact of the receipt of a message be divulged, except to the proper authorities.

RULE 49.

Free-delivery limits.

Messages will be delivered free within a radius of one-half mile from the office in any city or town of less than 5,000 inhabitants, and within a radius of 1 mile from the office in any city or town of 5,000 or more inhabitants. Beyond these limits only the actual cost of the delivery service will be collected; the delivery clerk will, however, see that such cost is as reasonable as possible.

RULE 50.

Special delivery.

If the services of a special messenger be required, and the special-delivery charges have not been provided for, the sending office will be promptly notified by telegraph of the cost of delivery, and that office will endeavor to collect the charges from the sender, who, if he pays or guarantees the delivery charges, will also pay for the message ordering special delivery or guarantee the collection of the tolls thereon. If the sending office be unable to collect, or if a reply from the sending office to the notice be not promptly received, a copy of the message will be mailed to the addressee, and if another copy be afterwards delivered, the word "Duplicate" will be plainly written across its face. In case of a collect message, a postal-card notice (Form 137–A) will be mailed, the date of mailing to be indorsed on back of envelope containing the message.

RULE 51.

In case of failure to collect delivery charges.

When special-delivery charges which have been guaranteed (see Rules 8 and 50) can not be collected by the office making the delivery, the sending office will be immediately notified by a service message of the failure to collect and of the amount of the charges.

RULE 52.

Notices to addressees of undelivered messages.

When a message can not be delivered because the addressee's place of business or residence is closed, or because no authorized person can be found to receive the message, the messenger will leave a notice (Form 137–B) at the place of address. The undelivered message will then be returned to the office, with the reason for nondelivery indorsed upon the envelope, and will be delivered as early thereafter as possible. Should subsequent efforts to accomplish delivery result in failure, a notice will be left each time as an evidence of the fact that proper effort was made to make delivery. The stubs of Form 137–B will be preserved. If the addressee be reported to have left

town, a notice on Form 137–B will, nevertheless, be left at the place addressed. A postal-card notice will also be mailed. This to insure delivery in case the addressee returns unexpectedly or at a subsequent date.

If the addressee call for the message while in the hands of the messenger, he may be permitted to see the retained copy and, if he desires, make a copy thereof, but a receiving blank will under no circumstances be furnished, nor will a second copy be made on a receiving blank by anyone connected with the service. Receipts will be taken for messages delivered in this manner. (121 and 123.)

Service messages reporting nondelivery of messages addressed to business houses that are closed for the day are unnecessary. Persons likely to receive messages after business hours should be requested to designate some place where prospective urgent messages may be delivered.

RULE 53.

Messages not to be delivered to persons unauthorized to receipt for same.

A message must not be left with a janitor or porter of a building for delivery by him, nor be slipped under a door, nor left in a letter box, unless the addressee has filed a written request for such delivery.

RULE 54.

Messengers to obtain receipts.

A messenger will obtain a receipt on the delivery sheet for each message delivered, which receipt will include the name of the person to whom delivery is made and the time of delivery. Initials only will not be accepted. A messenger will in no case receipt for an addressee except when the addressee has authorized in writing such action or when the messages are to be mailed. In the latter case the time of mailing will be indicated and the messenger's full name indorsed on the delivery sheet. These messages will be put in the post office and not dropped in street or office letter boxes. Request for return after a given time should be indorsed on the envelope of all messages mailed.

Messages delivered to connecting line.

Messages delivered by messenger to a connecting line will be treated the same as if delivered to an addressee.

Deliveries by telephone.

Messages delivered by telephone will be entered on a delivery sheet, and the time, name of person receiving the message over the telephone, and name of clerk transmitting the message, with the word "telephoned," will be indorsed in the proper place on the

delivery sheet. The message will be held for future delivery by messenger or by mail. If the addressee should call for the message in person he will be required to sign his name immediately under that of the person who received the message over the telephone. If such delivery be at a later date, the date of delivery will be indicated. (See Rule 1.)

The utmost care should be taken in telephoning messages. Before sending the message, ascertain the name of the person at the receiver, and never send the message to any person other than the addressee except when requested to do so by the addressee. Upon completion of the transmission the message should be repeated back to make sure that no errors have occurred.

Messengers' books to be examined.

The delivery clerk will examine the delivery sheets or books of messengers on their return from each service, and at the close of the day, to see that correct delivery has been made and that all proper notifications have been given.

RULE 55.

Nondelivery of messages.

When a message can not be delivered because of wrong or inadequate address, or because the addressee is not known, or for any other reason, a record of the facts will be made upon the envelope of the undelivered message, and the sending office will be promptly notified by telegraph of the nondelivery; the service message giving such notice will contain the date, address, and signature of the message as received, and the reason for the failure to deliver. On receipt of such notice the sending office will compare addresses and will correct by telegraph any error that may be found. If no error appears, notice will be given to the sender of the message, who, if he desires to change the address, must either send a new message or pay for the service message necessary to change the address of the original. (See Rule 52.) Pending the correspondence as to "better address," the receiving office will mail a postal-card notification (Form 137–A), indorse on back of envelope the date of mailing such notice, also the date of the notification to the sending office. Should the postal card be returned by the Post Office Department it will be securely attached to the message and filed for record.

If delivery be accomplished at a subsequent date, the sending office will be notified by brief service message, and if the message be a "collect" the service message will state whether tolls were collected from the addressee. Double collections must not occur.

Messages not to be destroyed.

A message which from any cause has failed of delivery will be filed with other business; it will not be destroyed because of that or other reason, nor will a request to that effect be complied with.

Replies to service messages.

A reply to a service message must in all cases be addressed to the person from whom the message is received. The failure to observe this manner of correspondence may cause delay and annoyance.

EXAMPLE.—If any office receive a service message from New York signed "Service," the reply to such service must be addressed "Service," New York. (See Rule 4.)

RULE 56.

Delivery of collect messages without payment.

If the addressee of a collect message refuse to pay for the same, the message will nevertheless be tendered him, and, unless the message be an answer to a D. H. message, notice of the failure to collect will be at once given to the sending office by service message, in order that tolls may be obtained from the sender of the message.

Uncollectible messages.

All uncollectible messages will be noted on check reports, giving dates, amounts, and destination, or origin, as the case may be, in each case.

Delivery of messages at intermediate offices.

If, for any reason, the addressee of a message to an office on the military line call at a relaying office and request to see a copy of the message, he may, if known to the operator in charge, or furnishes satisfactory evidence that he is the person for whom the message is intended, be permitted to see it and if he desire may make a copy thereof, but Rules 52, 121, and 123 will be adhered to. A receipt on the messenger's delivery sheet will be required. If the message be prepaid, the office at destination will be informed by a brief service message that the addressee has seen the message at the relaying office. If it be a collect message, full tolls from originating office to original destination, as given in the message, will be collected by the operator in charge at the relaying office, and the office at destination so in formed by service message. The tolls collected will be remitted to the chief signal officer of the division by the relaying office, but must not appear on invoice or statement of remittance. A letter of transmittal will accompany, explaining fully the circumstances. The office at destination will include the amount thus remitted in its invoices and statement of remittances the same as if actually collected

at destination, and both originating and delivering offices will likewise enter the message on check reports and check ledgers. In each of these cases it will not be necessary to inform originating office of the method of delivery.

If the message be for an office on the other lines and has reached the transfer office, it will not be shown to the addressee. He will be referred to the other lines, as the Government has no control over the message after it passes to the other lines.

If the message be from an office on the military to an office on another line, the same procedure will be followed and the service messages necessary will be sent to the other line's office. No claim for reduction of tolls in such cases can be recognized—full tolls from originating office to original destination will be charged.

RULE 57.

Correction of errors.

If, after the delivery of a message, the addressee claim that an error has been made by the telegraph, and the error be not apparent to the operator in charge, the operator in charge may, by a service message to the sending office, ask for a duplicate of so much thereof as may be necessary, and if an error be thereby disclosed, a notice to that effect will be delivered, and no tolls will be collected for the service message. If no error be disclosed, a notice to that effect will be delivered and tolls for a 10-word message will be collected from the addressee and the sending office notified to check.

Upon receipt of a service message requesting repetition of a message or any part thereof, the sender should be consulted with a view to confirmation or correction and should he desire to make a *correction*, a charge for a 10-word message will be made for the service message necessary to make the correction. The service should state whether the tolls were paid by the sender or whether they are to be collected at destination. If no error be disclosed and the sender confirms the message as originally filed, a service message in accordance with the first paragraph of this rule will be sent to the office making inquiry.

Messages delivered "subject to correction."

If for any reason a manifest error in a message can not be immediately corrected, it will be delivered with the words "delivered subject to correction" plainly indorsed after the check, indicating the cause for such delivery, such as wrong check, or omission of some portion of the message due to the fault of the line. When a corrected copy shall have been obtained, it will be marked "corrected copy" and delivered to the addressee.

Nondelivery not to be traced by service messages.

Complaints of nondelivery will not be traced by service messages. If report of delivery be desired, a service message may be sent only if the sender guarantee payment for a 10-word service in reply. Charge will be made but for one message. If failure to deliver be the fault of the line, no charge will be made for the service messages.

RULE 58.

Complaints of nonreceipt of messages.

If a person claim the nonreceipt of a message supposed to have been sent to him and no record of its receipt be found in the delivering office, he may, if he desire, send a paid or guaranteed service message to ascertain if the message was filed and, if the fault be chargeable to the line, no charge will be made for the service messages.

CHAPTER VI.

ACCOUNTS, REPORTS, AND REMITTANCES.

RULE 59.

Disposition of "this line" and "other line" tolls.

Section 3617 of the Revised Statutes requires that all moneys received for transmission of private dispatches over any and all telegraph lines owned or operated by the United States shall be paid into the Treasury of the United States.

(This refers to "this line" receipts only.)

"Other line" accounts.

The following rules, in so far as they require the rendition of "other line" accounts, apply only to offices of the Washington-Alaska Military Cable and Telegraph System, the Fort Apache-Holbrook line, and Huachuca-Lewis Springs line. Operators at other military posts in the United States collecting "other line" tolls are considered as acting as agents for the telegraph company and will make settlement direct with the company.

RULE 60.

Designation of "this" and "other" line receipts.

All moneys received for the transmission of commercial messages are divided into two classes: "This line" and "other lines."

The "this line" receipts are tolls collected on commercial telegraphic messages of every character transmitted over the lines owned and operated by the United States. Such moneys are Government funds.

"Other line" receipts are tolls collected on account of the commercial telegraph companies and for payment of postage, special delivery, etc. Such moneys are not Government funds and are not subject to section 3617 of the Revised Statutes of the United States.

RULE 61.

Disposition of official messages passing in part over commercial lines.

A check ledger will be kept at each telegraph office. The first division of the ledger (the eight columns between date columns), immediately following the last division used during the preceding month, will be reserved for the home office, the name of which will

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NOTE.—Reports required by this manual to be rendered in regard to military telegraph lines are not required in the case of loops connecting military posts with commercial telegraph stations.

be written in red ink at the top. The name of each office on the line, in alphabetical order, and written in black ink, will follow that of the home office, each being assigned a division of the check ledger.

At the close of business each day, the messages will be sorted and arranged alphabetically in respect to stations. All messages, commercial and deadhead (the latter includes official messages), sent to or received from each station will be kept together and in the order named. Official messages which pass in part over commercial lines will be filed with commercial messages, but skeleton copies of all official messages originating at offices on the military lines, which pass in part over commercial lines, will be retained at the originating office. The original copy will be sent with the "other line" account current at the end of the month to the chief signal officer of the division, who will make proper disposition thereof, by transferring them to the commercial company over whose lines the message passed.

After the amounts representing the tolls received by and checked against the home office have been determined for each office, the totals will be entered in the check ledger in their respective divisions and under the proper headings. The term "this office" always refers to the office keeping the check ledger.

RULE 62.

Check ledger at offices other than transfer offices.

At offices other than transfer offices the check ledger will be made up daily as follows: The headings "This office checks other offices" and "Other offices check this office" of the first or home office division will be erased and replaced with one heading, reading, "This office receives." Over the first four columns and under the headings "This line" and "Other line" will be written "Local cash." Over the third two columns the words "This line" will be erased and the word "Total" be inserted, and over the fourth (last) two columns the words "Other lines" will be erased and the word "Sundries" inserted.

Example.

THIS OFFICE RECEIVES.

Local cash.				Total.		Sundries.	
This line.		Other lines.					

In the first two volumes of the division will be entered the amount of "this line" tolls received on messages sent "paid" or received "collect." In the second two columns will be entered the amount of "other lines" tolls received on messages sent "paid" or received

"collect." In the third two columns will be entered the aggregate of the first four columns, which will thus show the total amount of telegraph tolls received daily. Money received for special delivery, guaranteed messages, and postages will be entered under the heading "Sundries."

Messages for points on "other lines" will be checked against the office of "this line" at which they are transferred. Transfer offices will not be checked with the "other lines" tolls on messages received "paid" from or sent "collect" to offices on "other lines." In these instances the "this line" tolls only will be checked against the transfer office.

RULE 63.

Check ledger at transfer offices.

At transfer offices the ledger will be made up daily as follows:

At the top of the first or home office division will be written "Local cash." The headings "This office checks other offices" and "Other offices check this office" will be erased and replaced with one heading, reading "This office receives." Over the last four columns will be written "Sundries."

Over the second division will be written "Western Union" or the name of the company that transfers telegrams to the Signal Corps lines and owes tolls thereon to the United States. The heading over the first four columns of this division "This office checks other offices" will be erased and replaced by "This office receives." The last four columns of this division need not be used.

Over the third division will be written "Total." The last four columns of this division will show the sum of the "local cash" and "Western Union," which will be the total receipts of "this" and "other" lines, and are the figures that make up the account current. The first two columns of this division show the total amount of "this" line tolls that is checked against all the offices on "this" line, and the second two columns show the amount of "other" lines tolls that is checked against offices on "this" line. It also shows the amount that is due the Western Union or connecting lines for telegrams transferred to their lines.

Local cash.				Western Union.				Total.			
This office receives.				This office receives.				This office checks other offices.		Other offices check this office.	
		Sundries.									
This line.	Other line.	This line.	Other line.	This line.	Other line.			This line.	Other line.	This line.	Other line.

Money received for special delivery, guaranteed messages, and postage will be entered under the heading " Sundries."

RULE 64.

Station accounts current; invoices and receipts.

Separate and distinct accounts current for both " this " and " other lines " receipts will be made out monthly in triplicate by each office. Two separate and distinct sets of duplicate invoices and receipts for both " this " and " other lines " receipts will accompany the accounts current, two copies of each account current being forwarded to the chief signal officer of the division not later than the 10th day of the month following that to which the receipts pertain. In case of interruptions occurring at the end of the month the accounts and reports will be held open not to exceed eight days, with a view to embracing in each current month all business pertaining thereto. If messages pertaining to the preceding month should be received after the close of accounts for that month, supplementary accounts and reports will be forwarded. The third copy of the account current will be retained. Triplicate copies of invoices and recipts are not required. If unusual delay should result in receiving the receipts from the chief signal officer of the division for tolls remitted, a request therefor should be made.

Statement of remittances.

A separate and distinct statement of remittances for both " this " and " other lines " receipts will be prepared monthly in duplicate on Forms 132–A and 132–B; one copy of each will be forwarded direct to the Chief Signal Officer of the Army, Washington, D. C., not later than the 3d day of the month following that to which the statements pertain, and the second copy will be retained. Should an operator in charge discover that an error has been made in reporting amount of remittances, he will at once forward a corrected statement of remittance direct to the Chief Signal Officer of the Army.

Statements to be rendered when no business handled.

If no business be handled, all of the foregoing reports, except invoices and receipts, will nevertheless be rendered. Check reports and monthly message reports will similarly be rendered.

Credits permissible on " this line " account current.

The only credits permissible on the " this line " account current consist of remittances to the chief signal officer of the division and authorized refunds, the latter to be covered by duplicate receipts from the persons in whose favor the refunds are made.

Debits and credits on " other line " account current.

On the " other lines " account current all " other line " tolls and sundry receipts will be debited, and credits will be taken for postage,

special deliveries, payment of "other lines" bills and "other lines" tolls on uncollected messages.

Date of forwarding line receipts to be recorded.

The date of forwarding accounts will be reported by telegraph to the officer in charge of each section by each operator in charge. The officers in charge will, after receiving reports from all stations, report by telegraph to the chief signal officer of the division the date on which the last account is forwarded. These accounts should never be delayed beyond the 10th day of the month, except where the infrequency of the mails compels a longer delay. Irregularities and delinquencies will be promptly investigated by the officer in charge and disciplinary action taken to secure a compliance with these regulations.

Cash book of the C. S. O. of the division.

The chief signal officer of the division will keep a cash book showing the amounts received each month from each station, the amount deposited, the amount remaining on hand, and such other records as may be deemed necessary. "This" and "other lines" receipts will be kept separately.

Ledger of the chief signal officer of the division.

It will be part of the duties of the chief signal officer of the division to see that accounts current are properly and promptly rendered by each station and that the tolls are properly cared for. A ledger will also be kept for both "this" and "other lines" cash received, the accounts being kept separately.

Abstract of "this line" receipts.

The abstract of "this line" receipts (Form 129) of the chief signal officer of the division will be prepared in duplicate not later than the 10th day of the month; one copy, with invoices and station account current, will be forwarded to the Chief Signal Officer of the Army, and one copy, with invoices and station account current, retained.

Station accounts current to be forwarded separately if delayed.

If for any reason it be found impracticable to forward the station account current with the account current of the chief signal officer of the division, and the tolls have been properly invoiced and received, the tolls will be taken up on the abstract of "this line" receipts, accompanied by the invoices for the month in which the tolls were received. In such cases appropriate explanation should be made for the absence of the station account. Upon receipt of the station account current it will be forwarded at once or with the next account current of the chief signal officer of the division.

Account current of "other lines."

The chief signal officer of the division will similarly render an account current (Form No. 102) of "other" lines receipts accom-

panied by the station accounts current and invoices. In the preparation of the abstract of "this line" receipts and the account current of "other lines" receipts, the chief signal officer of the division will take cognizance only of such moneys as have been properly invoiced and receipted for by him during the period covered by the abstract and account current.

Transfer of line receipts by C. S. O. of division when relieved of duties.

Upon relinquishing the duties of chief signal officer of the division, the officer making the transfer and the relieving officer will take cognizance only of such "other line" moneys or their equivalent as may be in the possession of the outgoing officer at the date of transfer. All "other lines" funds will be transferred by invoice and receipt, and the outgoing officer will at once prepare and forward to the Chief Signal Officer of the Army his final abstract of "this line" funds and account current of "other lines" funds, accompanied by all necessary vouchers. No transfer of "this line" funds will be made, but they will be deposited to the credit of the Treasurer of the United States. (See Rule 59.)

RULE 65.

Sundry receipts, special deliveries, postage, franked envelopes, etc.

Moneys received on account of messages to be mailed or for special delivery will be taken up by the sending office under the head of "sundry receipts" on the "other line" account current, indicating thereon in each case the amount and the office at which the message is to be mailed or delivered. The receiving office, in cases of postage, will render a single "Statement of moneys expended for postage" showing thereon the amount of postage paid on mailed messages and the names of the offices ordering same, and will take credit for the total amount under the head of "postage" on the "other lines" account current. In cases of special delivery, the receiving office will take credit on the same account current, under proper heading, for the total amount of payments made on account of special deliveries, giving the name of each office ordering the special delivery, and will forward the receipt, in duplicate, of the person performing the service, as a voucher for the expenditure. The money received or expended for special delivery will be debited or credited, as the case may be, on the "other lines" account current. No expenditures will be made for postage or special delivery unless it be authorized by the sending office except when previous arrangements have been made therefor. The use of franked envelopes for mailing commercial and deadhead messages is forbidden.

Prompt rendition of accounts and protection of line receipts.

Line receipts from all stations will be accounted for in accordance with law and instructions given by the Chief Signal Officer of the

Army through the chief signal officer of the division. Ample protective measures will be taken by all concerned that line receipts and accounts are placed in the hands of the chief signal officer of the division or such other officer as may be designated with the utmost dispatch and security.

RULE 66.

Checks not to be changed; statement of uncollected messages; how accounted for, etc.

An office having sent a collect message and having received a notice of failure to "collect" will under no circumstances request that the check be changed, but the message will be entered at both sending and receiving offices precisely as if the tolls had been collected. If the message pass in part over "other lines" the receiving office will take credit for the amount of "other lines" tolls on the "other lines" account current and forward therewith an "other lines" "statement of uncollected messages" one copy only accompanied by a skeleton copy of every uncollectible message and a full copy of every service message pertaining thereto. Credit will be obtained for "this line" tolls by deducting the amount from the receipts for the days on which messages were entered, and the operator in charge will forward a "this line" "statement of uncollected messages," in duplicate, with copies of messages as described for "other lines."

An office receiving a collect message on which tolls could not be collected will, in order to receive credit therefor, show that the sending office was duly notified by wire that the tolls were uncollected. The sending office will collect the tolls from the sender, and if the message be one to a "this line" office, the "this line" tolls will be taken up on the "this line" account current under the heading "Received for guaranteed messages," accompanied by one copy of "statements of guaranteed messages" with skeleton copies of all guaranteed and full copies of all service messages pertaining thereto.

If the message be one sent to a point upon a commercial telegraph line, the combined amount of "this line" and "other lines" tolls will be taken up on the "other lines" account current under the heading of "Sundry receipts," accompanied by statements, etc., as directed for the "this line" account current. The "this line" guarantee tolls are taken up on the "other lines" account current to avoid taking up the same amount of "this line" tolls guaranteed and uncollectible on the same message twice upon the "this line" account current and covering it into the United States Treasury at the expense of "other lines."

Settlement of other line bills at military posts in the United States.

The following from the tariff books of the commercial companies is published for the information and guidance of all concerned:

We are advised by the Chief Signal Officer of the Army that in some cases Signal Corps men at military posts in the United States

have been delinquent in rendering their returns to the telegraph companies and that some managers have permitted Signal Corps men to delay for months the settlement of their telegraph accounts. The Chief Signal Officer of the Army requests that all managers require accounts of the Signal Corps for the preceding month to be settled not later than the fifth day of each month, and if such accounts have not been settled with the telegraph company on or before that date the chief signal officer of the division in which the Signal Corps men serve, be notified on the sixth day of each month by telegraph of such failure on the part of the Signal Corps men to settle their telegraph accounts.

Managers dealing with Signal Corps men should act in accordance with these instructions.

RULE 67.

General instructions for transfer offices only.

This rule applies to transfer offices only. The statements of guaranteed and uncollectible messages made to accompany the account current will include only the local guaranteed and uncollectible messages. "Transfer statements of guaranteed messages" and "Transfer statements of uncollected messages," one copy, will accompany the accounts current for the months during which said messages were handled, with skeleton copies of every message and full copies of the service messages pertaining thereto. The "Transfer statements of guaranteed messages" will include all transfer messages which should be accounted for as guaranteed at points on "this line." The "Transfer statements of uncollectible messages" will include all transfer messages reported as uncollectible at points on "this line." The total amount of the last-named statement will be taken up on the account current, "this line" and "other lines," respectively, at the transfer office under "sundry receipts refunded from other lines," and on the other side of the same account current credit will be taken in one item for the total amount of the bill of "this line" against the "other lines." The bill will be itemized as follows:

Amount due on regular transfers.
Amount due on uncollectible messages.
Amount due for special delivery.
Amount due for postage.

The amounts due from the "other lines" for special delivery and postage will be taken up under "sundry receipts" with the local receipts under those heads, as described for offices other than transfer offices (Rule 66), a corresponding credit being obtained on the other side of the account current by the amount due from "other lines" as per bill. The bill of the "other lines" against "this line" should be itemized as described under preceding paragraph of this rule.

Payments of amounts due "other lines" will be made by the operator in charge at transfer offices to the authorized representatives of the "other lines" at such points as may be determined by the "other lines." Itemized bills in duplicate of messages transferred will accompany the account current. Duplicate receipts for such payments will be taken in the name of the chief signal officer of the division and invoiced as so much cash by the operator in charge.

RULE 68.

Check reports.

A check report (Form No. 105) will be rendered monthly in duplicate by each office; one copy will be forwarded to the chief signal officer of the division with the account current and one copy retained.

This report is an abstract of the check ledger and will be prepared as follows: Enter in the first column, in alphabetical order, the names of all offices with which commercial business has been done during the month; then enter opposite the name of each office, under the heading "this office checks other offices," the total amount shown by the check ledger to have been checked against such office for "this line" and "other lines," respectively, and under the heading "other offices check this office" enter the totals "this line" and "other lines," respectively, shown on the check ledger under the heading "This office receives."

Uncollectible messages will be noted on this form, giving dates, amounts, and destination or origin, as the case may be, in each case.

The number of messages handled during the month will be entered on the back of this form.

RULE 69.

Check errors.

The discrepancies found to exist in the check reports of various offices when examined in the office of the chief signal officer of the division will be taken cognizance of and entered in the "Record of check errors." The "Record of check errors" is a book in which will be kept a complete history of all check errors. The errors will be entered immediately upon completion of the examination.

Should any discrepancies be discovered in the examination of the check reports, the office which appears to be in error will be communicated with by the chief signal officer of the division.

Upon receipt of such a communication the operator in charge will at once compare the daily record of business shown on the check report with the check ledger and messages, and make immediate report by indorsement if inquiry be made by letter, and by telegraph, if inquiry be made by telegraph, explaining discrepancies. In case of a deficit the amount will be remitted with the next monthly

remittance, such remittance to be entered on the account current as "on account of check errors for the month of ———." It will also be invoiced, but not as a separate item, when the next monthly invoices and receipts are forwarded. Similarly it will be included in the "Statement of remittances."

If the operator in charge was not in charge during the period in which the error was made, he will so report to the chief signal officer of the division, giving the name of the responsible operator, or, if the latter be still in the division, refer the communication to him by indorsement, at the same time informing the chief signal officer of the division of action taken. No correspondence of any nature between operators or others concerned regarding check errors will be permitted. All correspondence of this character will be between the chief signal officer of the division and the responsible operator.

RULE 70.

Remittances.

Remittances of line tolls will be made to the chief signal officer of the division by post-office money orders or Government checks. On the Washington-Alaska Military Cable and Telegraph System, Signal Corps telegraphic transfer certificates may be used when indorsed, "Pay to the order of the officer in charge, Washington-Alaska Military Cable and Telegraph System," by the payee, and the operator cashing the check or certificate, whenever the total amount of both "this" and "other line" tolls reaches the sum of $100, and at the close of the month, except at offices operating under special instructions. The money orders and checks will be retained until the end of the month and then invoiced to the chief signal officer of the division, with the exception that offices on the Washington-Alaska Military Cable and Telegraph System will forward the money orders, checks, and certificates so retained to the officer in charge, Washington-Alaska Military Cable and Telegraph System. Separate invoices for each kind of remittance will not be made, but the entire remittance for the month will be entered on a single invoice, the invoices and receipts to be rendered in duplicate as directed in Rule 64.

The serial numbers and amounts of each post-office money order, Government check, or transfer certificate, and where deposits are made in a designated United States depositary, the numbers and amounts of the certificates of deposit, will be entered on both copies of the invoices and receipts. Certificates of deposits will be taken in the name of the chief signal officer of the division.

Where none of the foregoing means of forwarding funds are available, remittances will be made by registered mail whenever the amount of funds on hand reaches a total of $50, and also at the end of

the month, except at offices operating under special instructions. Accompanying each and every remittance will be sent duplicate invoices and receipts upon the prescribed forms, No. 121 or No. 122, separately, for "this" and "other" line funds.

The duplicate receipts will be signed by the officer to whom the money is sent, who will forthwith return both copies to the operator in charge remitting the money. The operator in charge will then file one copy with his retained account current on which the remittance is credited, and immediately forward the other copy direct to the office of the Chief Signal Officer of the Army.

At offices where there are no post offices the operator in charge will, when the amount of tolls on hand reaches $50, and also at the end of the month, have at least one man, and when possible all the men at his station, witness, and sign as such, the letter of transmittal accompanying the remittance, which must be inclosed in a secure wrapper, usually a linen-lined envelope, and addressed to the chief signal officer of the division, and in their presence inclose the funds, letter of transmittal, and all necessary papers, seal the same, and inclose them in another envelope addressed to the operator in charge at the nearest post office. The package will be given to the first passing mail carrier in the presence of witnesses, taking a receipt therefor, for delivery at the place specified. The operator at the post-office station will at once be notified by telegraph of the remittance. The operator receiving the package from the mail carrier will receipt to the carrier therefor, have the same registered, inform the remitting operator by wire, and also send him the registry receipt.

Line receipts will not be remitted by express except when specifically authorized.

Personal funds expended by the operator in charge for money orders, registry fees, or expressage in the transmission of telegraph line receipts in accordance with the foregoing instructions will be refunded by the chief signal officer of the division when the amount due is $1 (or less if so desired) upon the presentation of vouchers made out on Signal Corps Form No. 28, accompanied by registry receipt, retained stub of the money order or express receipt. In any case vouchers for the reimbursement of any and all moneys due will be submitted on June 30 of each year without fail. Sufficient evidence of expenditure must be furnished to warrant the reimbursement. Retained copies of registry receipts and post-office money orders must indicate the month to which remittance pertains, also the name of the remitter. Separate vouchers are necessary for each fiscal year. Money orders and registry receipts purchased after June 30, pertaining to receipts for the month of June, should therefore appear on the voucher for the fiscal year beginning July 1.

Whenever possible one money order will be made to cover all remittances, including check errors. The number of orders must be reduced to the minimum.

All official mail must invariably have indicated on the envelope the name of the telegraph office from which sent. On registered letters the name of the sender must also appear on the envelope. All official mail for the chief signal officer of the division must be addressed "Chief Signal Officer, ——— Division."

RULE 71.

Monthly reports of conditions in general.

Officers in charge of sections will, not later than the 10th day of each month, render, in duplicate, to the chief signal officer of the division, a brief report on the conditions and operations of the offices and lines on their sections. The report will state what general repairs were made during the month, with appropriate recommendations for continuing the line in an efficient state of operation. A "Monthly line report" will accompany each report, one copy only being necessary. Operators in charge of detached sections will also render a "Monthly line report."

The chief signal officer of the division will, not later than the 10th day of each month, render to the Chief Signal Officer of the Army a monthly report, which shall cover fully the operations of the lines, together with a statement of the line tolls, interruptions, and such other information as may be of interest.

On July 1 of each year, or as soon thereafter as practicable, each officer in charge of a section will render, in duplicate, to the chief signal officer of the division, an annual report which shall give a full statement of all work accomplished during the fiscal year, including extensions or betterments, with recommendations for the future maintenance or betterment of the service. This report shall give the total number of days of interruptions to the line and the causes thereof. The chief signal officer of the division will embrace in his annual report such part of the data contained in the reports of the officers in charge of sections as may be deemed necessary, or forward the reports in their entirety as inclosures to his report.

CHAPTER VII.

TRANSMISSION OVER SUBMARINE CABLES BY THE SIPHON RECORDER SYSTEM.

In handling messages over submarine cables by the siphon recorder system, the following rules will govern in order to reduce the time of transmission as much as possible:

RULE 72.

Method of signaling messages.

The number of the message, the check, also the date, are sent in "short code" figures (see characters for short code figures), but any figures occurring in the text of the message are sent in "long" code figures.

In a message: Send first, the number of the message; second, the sending operator's sign; third, the check; fourth, the station from and date; and fifth, the address. At the end of the address the signal "I I" (- - - -) is sent, after which follows the text, and at the close of the text, if there be a signature, the signal "I I" (- - - -) is again sent to show that the text is finished, after which follows the signature, then the "Finish signal," which is "Period" (- - - - - -) or "Understand" (- - - — -). If there be no signature, the "Finish signal" is sent at the end of the text. The signals - - - - - - or - - - — - are used as the "Finish signal" of the message; the former when on a cable worked simplex the sending operator wishes to hold the line, and the latter when he completes the transmission of all messages and gives the line over to the operator at the distant end. The signal - - - - after the address is known as "DQ" to distinguish it from the same signal (- - - -) before the signature.

RULE 73.

Collating messages.

It is considered good policy to repeat at the end any figures or initial letters that occur in a message. This is known as collating. The figures are repeated by the sending operator in "short code," which acts as a check on the figures as originally sent. There is a great tendency to make mistakes in receiving on the siphon recorder on account of the similarity in the appearance of some figures on the tape; hence the advisability of collating.

NOTE.—For detailed instructions for the care and operation of recorders and for cable testing, see Signal Corps Manual No. 4.

RULE 74.

Method of collating.

For example:

Nr 46 Si J 8 paid.

(Dated) FAIRBANKS, ALASKA, 12,

(To) GREENGAGE, *London.*

(Text) Commence 4085 Dupont K Lumsley.

9231.

After sending the "Finish signal" the sending operator says, "- - — — - - - - - — — — - — - - — - - - — — - — Ltr K." In other words he repeats in short code the figures he has sent in long code and also repeats the letter "K" to show that it is not part of a word.

If figures are written like the following, "$1\frac{3}{4}$, 1 3/4," they are sent - — — — — - - - — — — — — — —, - — — — — - - - — — - - - - — and collated - — three - - - - —; - — - - - — — four. In the first case the numerator of the fraction is spelled out in collating, and in the last case all figures after the stroke are spelled out.

RULE 75.

Method of erasing when sending.

If the sending operator "breaks" in a word and he wishes it erased, he should send at least four reversals (known as a rub out), which is the same as the letter "N" sent four times without any space, and go back to the word just preceding.

Some operators are careless in the manner of "rubbing out." They frequently send only the letter "C," which the receiving operator might put down as an "Initial letter," thus causing an error.

RULE 76.

Footnote to messages.

The letters "MM" are used at the end of a message to denote a footnote. This footnote will generally relate to some instructions about the message or its contents. If any word in the message appears doubtful and can be read two ways and there is no immediate prospect of getting the word verified, it is usual to add an "MM" and say "query so and so," giving the other reading. For operator may write the footnote "4th body word may be 'Shines.'" or "Shines," and it is signaled "Shiner," after finishing the message add "MM," "Query fourth shines." At the station of delivery the operator may write the footnote "4th body word may be 'Shine." This for the benefit of the party to whom the message is delivered. This adding of an "MM" where words are doubtful often saves getting the word repeated later over a long distance.

RULE 77.

Repetitions of words lost while receiving.

If the receiving operator loses one or more words in a message through any cause, he usually asks for a repetition by saying, "RQ" (Requisition) Nr —— - - — — - - Wa "So and so" (giving the word before the word omitted), or 2 Wa, or 3 Wa, as the case may be; and if uncertain about the number of words lost, it is better to say, - - — — - - from —— to —— (giving the word before and the word after the lost words), or - - — — - - to such a word (giving the word); or - - — — - - AA such a word (giving the word). The signal - - — — - - means repeat, "Wa" means "word after," and "AA" means "all after."

RULE 78.

Correct spacing.

The importance of correct spacing between the letters and words, in cable sending, can not be emphasized too strongly. More errors and delays occur through irregular spacing than any other cause. The running of words and letters together in code messages makes it extremely difficult for the receiving operator to properly decipher the message, and consequently he has to hold it for repetition, or, as sometimes happens, he lets it go as he thinks it should be with the probable result of an error. Because of the retarding effect of the static capacity of a cable there is always a lag, more or less, in the arrival of the signals at the distant end, so that two letters sent very closely, without proper space, will look like one at the receiving end, and if the necessary elements are there they will form a distinct letter, such as "F" for "In," "R" for "En," etc. Errors from this cause should be charged against the sending operator.

RULE 79.

Long and short code characters.

LONG-CODE FIGURES.		SHORT-CODE FIGURES.	
1.	- — — — —	1.	- —
2.	- - — — —	2.	- - —
3.	- - - — —	3.	- - - — —
4.	- - - - —	4.	- - - - —
5.	- - - - -	5.	-
6.	— - - - -	6.	— - - - -
7.	— — - - -	7.	— — - - -
8.	— — — - -	8.	— - -
9.	— — — — -	9.	— -
0.	— — — — —	0.	—

RULE 80.

Abbreviations used on cables.

SU.	Urgent service message.	GQ.	Paragraph.
BQ.	An answer to a service message.	RQ.	Requisition.
MQ.	Wait.	UQ.	The other line.
KQ.	Reply when ready.	WA.	Word after.
CQ.	All stations.	AA.	All after.
HQ.	How are signals?		

RULE 81.

Punctuation marks, etc.

Period	(.)	- - - - - -
Comma	(,)	- — - — - —
Interrogation	(?)	- - — — - -
Exclamation	(!)	— — - - — —
Fraction line	(-)	— —
Shilling mark	(/)	- - -
Hyphen	(-)	— - - - - —
Apostrophe	(')	- — — — — -
Dollars	($)	— - - - — - -
Decimal point	(.)	- — — -
Paragraph		— — - — — - —
Underline	(-)	- — - - - — - -
Quotation marks	(" ")	- — - - — -
Parentheses	(( ))	— - — — - —
Final signal	(Sn)	- - - — - (Called understand).
Footnote	(MM)	— — — —

RULE 82.

Service message code for cablegrams.

Instead of using the service message code (Rule 44) in obtaining corrections to messages passing over any of the cables, the following instructions will be adhered to. They may be also used on land lines if desired.

Example No. 1.

(Message from Nome to Seattle.)

5 Si A B 5 paid.

NOME, *June 7–8, 1908.*

JOHN DOE, *Seattle.*

Abbey Icicle Frank Bradley Gallery.

RICHARD ROE.

If, upon delivery of the message, the addressee claims an error in the last word, Seattle would send the following service:

Example No. 2.

NOME.

Yr 5/7/8/ Doe fifth Gallery.

SEATTLE 8.

The first figure in the service denotes the number of the message to Seattle; the second figure the date of filing; and the third figure the date of sending to Seattle.

Sitka compares the service with his tape copy and if no error be apparent he amends the service by changing the number only and forwards it to Valdez.

Example No. 3.

NOME.

Yr 3/7/8/ Doe fifth Gallery.

SEATTLE 8.

If there be no error at Valdez, the service will be amended as per example No. 3 and forwarded to the next relay office. It will be observed that the first number in the body of the service must be changed at each relay office so that no delay will occur in locating the message.

The relay office first discovering the error will stop the service and reply as follows. Supposing Valdez stopped the service, as the word in question reads Galley in his copy:

Example No. 4.

SEATTLE.

Nome's 3/7/8 Galley.

VALDEZ 8.

If no error be discovered at any office, the originating office will send the following, supposing it to be Nome's No. 1 to the first relay office en route to Seattle:

Example No. 5.

SEATTLE.

Our 1/7 Doe fifth Galley.

NOME 8.

In examples 4 and 5 the service will go direct to Seattle without amendment by relaying offices. The office making the correction must always appear in the signature.

The greatest care should be exercised in correcting errors. When code or cipher words are in question and the relay office is unable to make what would appear to be a proper correction the service should be amended and rushed forward to originating office.

Service messages take precedence over other business, as provided by Rule 14

RULE 83.

Foreign cablegrams.

The rules and tariffs published in the tariff books of the commercial telegraph companies must be adhered to strictly in handling foreign cablegrams.

CHAPTER VIII.

PRESS.

RULE 84.

Tolls to be prepaid or guaranteed, collect press.

Newspaper specials and queries will be accepted "Collect" from authorized correspondents when addressed to responsible newspapers who have notified the officer in charge of the system or section, in writing, that they will pay the tolls on all news matter sent them by their authorized correspondents. Otherwise the tolls must be prepaid or guaranteed. (See Rules 7 and 91.)

RULE 85.

Correspondents must file credentials, etc.

Persons filing press matter or queries who are not known to be authorized correspondents of responsible papers will be required to present proper authority or prepay tolls on their dispatches before they are accepted.

RULE 86.

Advertisements not accepted at press rates.

Advertisements sent to newspapers will be charged the full commercial rate.

Minimum charge on press matter.

No press message will be rated as containing less than ten words, and the charges on any such message will be the same as for ten words.

RULE 87.

Press matter to be in plain English.

Press matter must be in plain English. Matter in cipher or code will be charged the commercial rate. Press dispatches in a foreign language will not be acepted at press rates, except where special arangements have been made for their handling.

RULE 88.

Figures in press messages; how counted and charged for.

Amounts in figures in press messages will be counted according to the least number of words in which they can be expressed. Examples:

999	three words (nine ninety nine).
1,000	one word (thousand).
23½	three words (twenty three half).
15½	two words (fifteen half).
9,961,000	six words (nine million nine sixty one thousand).
9,960,000	five words (nine million nine sixty thousand).

RULE 89.

Checks in press messages and queries.

The check of a collect query or press dispatch will show the number of words. The word "collect" will be counted but not charged for, the same as in a commercial message. Press dispatches for points on other lines must indicate in the check whether the day or night rate applies. This without regard to the hour of filing.

Press for other lines.

The rules and rates of the commercial companies pertaining to press for press associations will be adhered to in handling press for "other lines."

RULE 90.

Persons in the military telegraph service not to represent newspapers, etc.

No officer, operator, or civilian employee of the Signal Corps will be permitted to act as agent or correspondent except on extraordinary occasions, and then only on authority from the chief signal officer of the division.

RULE 91.

Press matter.

Dispatches addressed to newspapers for publication are entitled to the press rate only when they are bona fide reading matter of general interest to the public.

Messages or queries (not in code or cipher) and replies thereto relating strictly to newspaper specials, or instructions from a paper to its correspondents regarding the service he is furnishing, will be accepted at press rates.

Messages passing between a newspaper and a person with a view to appointment as the authorized correspondent of a newspaper will be charged the full commercial rate.

Whenever it becomes necessary on special occasions for a paper to order press matter from a person not already authorized to act as its correspondent, such telegraphic request for the matter will be charged press rate, and the message will be accepted as duly authorizing the person to act as correspondent of the paper. A written notification of such an appointment should be filed with the officer in charge or chief signal officer of the division if the appointment is to be made permanent.

Telegraphic orders for papers, type, or other supplies, or messages containing matter not bona fide reading matter, except queries and orders for press, will be charged full commercial rates.

CHAPTER IX.

TELEGRAPHIC TRANSFER CERTIFICATES (MONEY-TRANSFER SERVICE).

These rules are prepared with a view to conformity with those of the commercial companies, as far as practicable.
(For Alaskan offices only.)

RULE 92.

General information.

From those wishing to transfer funds by telegraph to Alaska from any part of the United States the Signal Corps will require at Seattle (1) the name of the payer; (2) amount to be transferred; (3) name of the payee; (4) name of telegraph station in Alaska to which funds are to be transferred.

Hours of acceptance.

Hours for receiving transfers at Seattle will be from 8 a. m. until 4 p. m. Transfers will not be transmitted on Sundays or holidays except under extraordinary circumstances.

Charges for service—Refunds for interruptions.

The charge for this service from Seattle, Wash., will be: Cost on one 10-word message at regular commercial rate plus $1 for each $100 or fraction thereof transferred. Interruptions to the line after transmission of the transfer from Seattle will not be deemed a sufficient cause for refund of tolls of any nature.

RULE 93.

Disposition of funds to be transferred.

The money to be transferred will be retained in the possession of the officer in charge of the Washington-Alaska Military Cable & Telegraph System, Seattle, Wash., until report of issue be received from the point of delivery in Alaska. The money will then be deposited to the official credit of the officer in charge of the Washing-to-Alaska Military Cable & Telegraph System in the name of that official, in a designated depository of the United States, to meet payment on these certificates.

Any amount may be transferred.

RULE 94.

Identification of payee.

The Signal Corps will require identification in matter of payment in all cases except when waived in writing by the payer or his agents.

The person identifying the payee should be in good standing and should be questioned regarding his acquaintance with the payee. The fact that designing persons have used the money-transfer service for unworthy purposes makes it necessary that the operator in charge should see that the money is paid to the right person in all cases.

Receipts for certificates.

The personal receipt of the payee will be required. Payees unable to write must have their mark witnessed.

Certificate to be completely filled in.

All blank spaces on the certificate must be properly filled in before delivery, and if there be no assistant operator in charge that fact must be so stated on the certificate before it is delivered.

RULE 95.

Delivery to other than the addressee.

Persons requesting money sent them by wire should, in case of a contemplated departure, give written authority in duplicate to the operator in charge at the delivering office to deliver the certificate to an authorized agent, should such action be desired. Otherwise the money will be returned to the sender. Transfers must not be paid to any person other than the payee mentioned in the transfer message, except on a written order, signed in duplicate by the payee.

Transfer notice not transferable.

Transfer notices (Form 147) are not transferable by the payee.

RULE 96.

Forms of messages to be used in telegraphing money transfers.

(1) Authority for issue.

11 Transfer.

SEATTLE, *June 4, 1908.*

Transfer, Fairbanks.

Issue two fifty-four John Doe two hundred Richard Roe, New York.

THOMPSON.

(See Rule 27.)

(2) Report of issue.

10 Transfer.

FAIRBANKS, *June 5, 1908.*

Transfer, Seattle.

Issued two fifty-four John Doe two hundred Richard Roe.

MERRILL.

(See Rule 27.)

RULE 97.

Nondelivery of certificate.

If for any reason a certificate can not be delivered, it will, nevertheless, be made up as directed by the officer in charge of the Washington-Alaska Military Cable & Telegraph System. After holding the certificate 72 hours (exclusive of Sundays and holidays) the following form of service message, with necessary modifications, will be sent.

(Service.)
(To) Transfer, Seattle.
Two fifty-four John Doe two hundred, unknown.
Fairbanks, June 7, 1908.

The certificate will then be held in a secure place pending receipt of further instructions.

Reports of nondelivery will not be made until every effort to accomplish delivery shall have failed.

RULE 98.

Cancellation; disposition of canceled certificates, etc.

Should the payer authorize cancellation the following form of service message, with necessary modifications, will be sent:

(4) Service.
Transfer, Fairbanks.
Cancel two fifty-four John Doe from Richard Roe.
Seattle, June 4, 1908.

Fairbanks would report as follows:

(5) Service.
Transfer, Seattle.
Two fifty-four canceled.
Fairbanks, June 4, 1908.

The certificate will then be detached from the stub and, after writing in bold letters in red ink across the face of both the certificate and the stub the word "Canceled," the former will be sent by first mail to the officer in charge of the Washington-Alaska Military Cable & Telegraph System, Seattle, Wash.

RULE 99.

Requests for payment after cancellation of certificate.

If payee afterwards call, the certificate must not be issued without authority from the officer in charge of the Washington-Alaska Military Cable & Telegraph System. The message inquiring if money has been refunded and answer must be paid for by payee. Such inquiries and replies must not be sent as free service messages. The "other line" tolls must also be paid in transfers from "other line" offices.

RULE 100.

Withdrawal of transfer by payer.

Should the payer for any reason request a withdrawal of the transfer, a 10-word paid message must be sent, directing a cancellation of the certificate. Refund of the money transferred will not be accomplished until report be received from the issuing office. The issuing office will, if the certificate has not been delivered, report as per example 5, Rule 98. If delivered, he will report as per example 2, Rule 96. No charge will be made for the reply to such messages. No part of fees or tolls will be refunded.

RULE 101.

Delays in issuance of certificates at delivering office.

If payee request the certificate retained at delivery office for future delivery, which must not exceed 30 days except in extraordinary cases, that fact must be reported after 72 hours to Seattle by service message, the following form, with necessary modifications, to be adhered to:

(6) Service.
Transfer, Seattle.
Two fifty-four Doe retained.
Fairbanks, June 7, 1908.

After the delivery, another service, as per example 2, Rule 96, must be sent, as the funds to meet the payments on the certificates are not deposited until receipt of the report of the delivery. (See Rule 93.)

RULE 102.

Change of address.

Should payer give new address for payment at same office before money has been refunded, charge will be made only for the one telegram necessary to correct the address. If transfer has been refunded, full charges for another transfer must be made and a new transfer sent.

If, after transfer has been sent, the payer wishes the money to be paid at another office, the original transfer must be cancelled by service message, as per examples 4 and 5, Rule 98. A new application will then be made by the payer and the original charges must be paid for the new transfer. No action to send new transfer should be taken until receipt of advice of cancellation of first transfer.

RULE 103.

Certificates to be presented promptly; when used as remittance for line receipts; to be indorsed by each person honoring them.

Payees should be requested to present the certificate for payment at the earliest practicable date.

Certificates when cashed by operators in charge, will, after being properly indorsed, be forwarded with their accounts current at the end of the month. (See Rules 70 and 105.)

Telegraphic transfer certificates must, when cashed, be indorsed on the back by the payee, and when paid from line receipts the operator remitting them as line receipts will also indorse them "Pay to the order of the officer in charge, Washington-Alaska Military Cable & Telegraph System," and to each indorsement the signature of the operator remitting as line receipts will be affixed.

RULE 104.

Filing of messages pertaining to transfers.

For convenience in filing and in order that each transaction may be kept entirely separate, not more than one certificate will be referred to in the same message. Figures will never be used.

RULE 105.

Offices at which certificates may be cashed.

The certificates may be cashed at any telegraph office in Alaska having sufficient funds on hand to cash in full.

RULE 106.

Disposition of revenue derived from transfers.

The tolls and fees charged for transmission of messages necessary to accomplish the transfer will be accounted for as "this line" telegraph receipts. The office at point of delivery will check Seattle for one 10-word message and also the fees on the money transferred.

RULE 107.

Accountability for blank certificate forms.

Blank certificates will be supplied as needed. Operators in charge will make timely requisitions for all forms required to maintain this service without suspension. Operators having in their possession blank transfer certificates will exercise the greatest care that they be not exposed or improperly issued.

The certificates will be accounted for on property returns and those expended should be entered on a separate "Certificate of expenditure" and sent direct to the officer in charge of the Washington-Alaska Military Cable & Telegraph System for approval. Serial numbers of the certificates should be indicated and should embrace all certificates for which authority to issue has been received, although the certificates may not have been delivered. Credit will not be given on the "Certificate of property expended" until the certificates have been actually issued or canceled. Upon receipt of the "Certificate of property expended" at Seattle they will be checked against the record of issues, and, if found correct, will be approved.

RULE 108.

Responsibility for operation of transfer system.

The officer in charge of the Washington-Alaska Military Cable & Telegraph System, Seattle, Wash., will give any additional instructions necessary to the operators in charge and will assume the responsibility for carrying out the transfer system.

Statements of money transferred by this system will be embraced in the monthly reports of the officer in charge of the Washington-Alaska Military Cable & Telegraph System.

No new transfer offices will be established except by the authority of the Chief Signal Officer of the Army.

RULE 109.

Method of transferring funds on deposit upon relief of officer in charge.

Upon being relieved, the officer to whose official credit the funds to meet payment on these transfer certificates are deposited will accomplish a complete transfer to his successor of all such funds. This will be done by drawing a check payable to the order of the relieving officer "on account of telegraphic transfer certificates," which check the relieving officer will immediately deposit to his official credit in the same depository in which funds were deposited by his predecessor. A certified statement of the outstanding transfer certificates, to meet payment of which the check is given, will also be furnished the relieving officer.

Funds to be deposited only in Government depositories.

Removal of funds from one depository to another will not be made without approval of the Chief Signal Officer of the Army. Funds will not be deposited to the personal credit of the officer, but to his official credit for the redemption of certificates as specified. Under a ruling of the Judge Advocate General of the Army, approved June 16, 1907, such funds shall be deposited only in a United States depository.

Loss of original telegraph certificate and issue of duplicate.

Immediately upon the loss of a telegraph transfer certificate, the owner, to better protect his interest, should notify the officer in charge of the Washington-Alaska Military Cable & Telegraph System in writing of the fact of such loss, giving, if possible, the name of the person in whose favor the certificate was drawn, its date, number, and amount, and requesting that payment of the same be stopped.

To procure the issue of a duplicate telegraph transfer certificate, the party in interest must furnish the officer in charge of the Washington-Alaska Military Cable & Telegraph System with an affidavit giving the name and residence of the applicant in full, describing the

certificate, showing his interest therein, detailing the circumstances attending its loss and what action, if any, he has taken to stop payment thereon. The affidavit must be made and signed before an officer authorized to administer oaths generally, and the latter must certify that he administered the oath.

To effect recovery of the amount involved, the owner will file with the officer in charge of the Washington-Alaska Military Cable & Telegraph System (issuing officer) an affidavit explaining the loss and, if the certificate exceeds $5 in amount, an indemnity bond as prescribed by the War Department will also be furnished. (Form 113.) Upon these papers a duplicate certificate may be issued after the expiration of six months and within three years; provided that when the amount does not exceed $50, the duplicate certificate may be issued at any time after the expiration of the 30 days.

CHAPTER X.

SPECIAL REGULATIONS PERTAINING TO ALASKAN LINES.

(For Alaskan offices only.)

RULE 110.

Reports of officers in charge.

The officer in charge of each section will make reports required by the officer in charge of the Washington-Alaska Military Cable & Telegraph System direct, and will receive instructions direct from that officer.

Responsibility for efficiency of sections.

The entire responsibility for the efficient operation and maintenance of each section rests upon the officer in charge of the section, these officers being guided by instructions from the officer in charge of the Washington-Alaska Military Cable & Telegraph System.

RULE 111.

Requisitions and transportation.

The officer in charge of each section and operators in charge of offices under the direct supervision of the officer in charge of the Washington-Alaska Military Cable & Telegraph System will forward requisitions in duplicate direct to the officer in charge of the Washington-Alaska Military Cable & Telegraph System so that they will reach Seattle not later than December 1 of each year. Requisitions for supplies furnished by the other departments should be submitted to the officers in charge of these departments at the posts in ample time for them to forward to their respective headquarters to insure the supplies getting through without delay. Ample quantities of all supplies must be provided, but wastefulness must be discouraged. Advantage of river transportation, which as the railroads advance will diminish somewhat, must be considered and all arrangements made to get supplies in during the open season. Where sledding is necessary to transport supplies, every precaution must be taken to place the supplies at destination before the break-up.

RULE 112.

Inspections.

Inspection of each section should be made semiannually, or more often if conditions warrant, by the officer in charge of the section. Where capable noncommissioned officers are available and their experience is such as to qualify them for inspection duty, they may

be designated by the officer in charge to make inspections. This must never be done if the officer in charge can make the inspection in person. Where inspections involving claim for mileage are contemplated by a commissioned officer authority therefor must first be obtained from the War Department. (See par. 1308, A. R.) A careful scrutiny of all matters pertaining to the operation and maintenance of the lines and offices will be made and a written report, with appropriate recommendations, will be submitted to the officer in charge Washington-Alaska Military Cable & Telegraph System upon the completion of each trip.

RULE 113.

Minimum force on duty at stations.

When practicable, the force at each outlying station shall consist of not less than three men, two of whom should be capable of cutting in and testing. During winter all repair parties shall consist of not less than two men. Under no circumstances will one man be sent out on repair work during winter. At river stations two men shall be the minimum number sent out on repair work at any season of the year. The operator in charge of a station will not be required to make repairs except when the other men are incapacitated. A written report of every such occurrence will be made to the officer in charge Washington-Alaska Military Cable & Telegraph System by the officer in charge of the section.

Parties to be suitably equipped on the trail, etc.

The hardships and danger attendant on travel in Alaska necessitate a close observance of precautions for personal safety. Officers and men charged with the dispatch of parties for changes of station, repair or construction work, or for other purposes that will entail entire dependence of the party upon itself while on the trail, will satisfy themselves that such parties are suitably equipped before permitting them to start out.

Transportation, bedding, clothing, food, tools, in fact all articles considered necessary not only for work but for the safety of individuals, will be provided, and all concerned will be instructed in rendering first aid to the wounded, in the treatment for frozen limbs, and be given full information as to procedure necessary under the unusual conditions incident to Alaskan winter travel.

RULE 114.

Dog teams for repair stations; other transportation.

Dog teams are furnished to repair stations for line repair purposes only and should not be used for any other purpose whatever except under the most urgent circumstances. When the team is so used, a written report will be made to the officer in charge of the Washington-

Alaska Military Cable & Telegraph System by the officer in charge, detailing the circumstances. All transportation so far as practicable will when necessary be available for use of the officer in charge of the section, and post commanders should give to the officer in charge full assistance in the prosecution of the work of supply and maintenance of the lines.

RULE 115.

Relief cabins.

The relief cabins established along the route of the lines are for the exclusive use of the Signal Corps. They will not be used for other purposes under any but the most urgent conditions. A small supply of wire, brackets, and insulators should be kept at these stations, and the inspector will always see that no wastefulness occurs in their use.

RULE 116.

Alcolia.

Alcolia, or its equivalent, in small quantities, should be kept at each relief cabin so that fire may be readily started during winter. It will not be used under any other conditions, but will be reserved for emergencies in the field.

RULE 117.

Requests for details of operators and others; assignments of men to stations.

It shall be the duty of the officer in charge of each section to report direct to the officer in charge of the Washington-Alaska Military Cable & Telegraph System not later than January 1 of each year the names of all enlisted men of the Signal Corps who should be returned to the United States. It shall be the policy not to return to the States any men who have had less than two years' service in Alaska except when such men have proven unsatisfactory or whose term of enlistment expires at such a time as to make it impracticable to bring them out after the close of navigation. Short-term men who desire to remain in Alaska another season will be required to inform the officer in charge in writing when possible in ample time for their names to be considered. After a promise to remain in Alaska or a request to come out has been made no change will be permitted unless under extraordinary circumstances. In submitting the report the officer in charge will prepare in tabulated form the qualifications which the relieving force must possess. No delay should occur in forwarding this report to the officer in charge of the Washington-Alaska Military Cable & Telegraph System, as it is from such information that he compiles his requisition for men to the Chief Signal Officer of the Army, which should reach Washington at the earliest practicable

date to enable a good selection to be made. Should changes in the number of men required be found necessary after the submission of the requisition, the officers in charge will indicate in their reports to the officer in charge of the Washington-Alaska Military Cable & Telegraph System what effect such changes will have on their requisitions. Department orders will issue sending these men to Alaska. Local conditions may make it advisable to divert them to stations not contemplated in orders, and for that reason the orders directing their movements will, as far as practicable, send them to a central distributing point, their assignment to stations being left to the officer in charge of the section. The assignment must be promptly reported by telegraph to the officer in charge of the Washington-Alaska Military Cable& Telegraph System, giving date of arrival at destination. Subsequent changes in station may be made by the officer in charge whenever necessary, but all changes must be reported by telegraph to the officer in charge of the Washington-Alaska Military Cable & Telegraph System on the 1st and 15th of each month. The greatest care should be exercised in assigning operators to stations where the volume of business is heavy or the receipts great.

RULE 118.

Descriptive lists to be kept at company headquarters, etc.

As a rule, the descriptive lists of all men at outlying stations, including those of soldiers of other arms of the service, detailed for duty with the Signal Corps will be kept at company headquarters, but when the issue of clothing, supplies, or pay can be more easily made by having their descriptive lists deposited at the nearest military post the descriptive lists will be kept at the nearest post. Descriptive lists will be forwarded immediately upon the departure of men to and from Alaska, and shall always be forwarded through the officer in charge of the Washington-Alaska Military Cable and Telegraph System. Men going in or coming out will always report at the office of the officer in charge of the Washington-Alaska Military Cable and Telegraph System for any special instructions he may have to give them.

CHAPTER XI.

MISCELLANEOUS.

RULE 119.

Discharge and expiration of service.

Operators or others in the military service will not be permitted to separate themselves from the service until it be finally determined that they are not indebted to the United States on any account. Final settlements of "other lines" accounts should also be required before discharge.

Operators on detached stations who do no intend to reenlist.

An operator serving at a detached station will inform the chief signal officer of the division or the officer in charge, as the case may be, two months before the expiration of his term of enlistment, whether he intends to reenlist in order that a suitable man may be selected for the station. If he does not intend to reenlist, the station records must be so arranged that the transfer may be effected as soon as possible after the arrival of the relieving operator. The relieving operator will carefully check all papers and satisy himself that all accounts, both property and money, are correct, before signing receipts therefor.

RULE 120.

Privacy of messages.

All messages passing over the wires will be treated with the utmost secrecy. No part of a message will be discussed with anyone, nor will its contents be revealed except to the sender or addressee or the proper officers of the Government when making inspections of the office, and when properly subpœnaed to produce a message in court. (See Rule 130.)

RULE 121.

Applications for copies of messages.

When the sender or addressee of a message applies for a copy of such message, he may, if known or properly identified, be allowed to see the message and make a copy therof, but under no circumstances will a receiving blank or a message envelope be furnished him. (See Rules 48, 52, and 133.)

Certification of correctness of messages.

Operators and others will not certify to the correctness of any message.

RULE 122.

Comparison of number sheets.

At each office, before closing, the operators will examine the number sheets and exchange number reports of the day's business with other offices, and immediately correct any errors discovered. When unavoidable, a service message will be sent the following morning, comparing numbers. This message must be answered only when the comparison is found to be incorrect, otherwise it must be filed unanswered. Service messages must be reduced to the fewest words necessary to convey the information intended.

"Sent" messages to be scrutinized.

At each office it will be made the duty of some one to scrutinize before filing for record all "sent" messages, to see that they bear the proper indication of transmission. The utmost care must be taken to prevent unsent messages from being placed with those which have been sent. Both the sent and received messages should be compared with the operator's number sheet to see that all messages have been properly accounted for.

Duplicated numbers.

Whenever duplicate numbers are discovered, a description of both messages should be wired to the distant office, where an immediate search of the files will be made with the view of preventing the loss of one of the messages and adjusting the numbers. The duplicated number will be made ½. For example: If two messages bearing number 50 are transmitted, and the fact is not discovered until some time afterwards, the one last sent will be made number 50½.

RULE 123.

Claims for damages; refunds of tolls, etc.

The United States can not recognize claims for damages arising from the failure of a message to accomplish its purpose. No operator or civilian employee is allowed to make refunds of tolls on account of failure or error in transmission of messages except on authority of the chief signal officer of the division. A refund of tolls will be made by the chief signal officer of the division or by his authority whenever the lines are at fault. The United States having no control over "other lines" tolls, except to collect and turn them over to the "other lines," the "this line" tolls only will be refunded, except when a message for an "other line" office fails to reach the "other line" through the fault of the Signal Corps. In such a case both the Signal Corps and "other line" tolls will be refunded.

The same precaution will be taken in handling "other lines" tolls as with "this line" tolls, but the United States can not be held

accountable for loss of "other lines" money through the infidelity of any of its officers or employees.

Refunds of tolls will be made only on the message in which the error occurred, except when through the fault of the military lines the message for another line office fails to reach destination. In such a case both this and other lines tolls will be refunded.

RULE 124.

Accountability for property.

The operator in charge of an office will be held accountable and responsible to the Government for all property and supplies whatsoever in his office or belonging thereto; for all money received, and for all transactions involving the payment of money in the regular and legitimate business of the office.

Obligations not to be incurred without proper authority.

Operators are prohibited from contracting debts or obligations on account of the Government, except when authorized to do so by competent authority.

Operators in charge held responsible for operation, etc.

Operators in charge of stations will keep themselves familiar with the condition and needs of their stations. They will report to the chief signal officer of the division or officer in charge, as the case may be, any acts on the part of the men serving with them which may affect the efficient operation of the office.

RULE 125.

Economy in use of supplies; Government property not to be diverted from authorized use.

Operators and other employees are expected and required to prevent loss and waste of stationery, office supplies, line-repair material, fuel, oil, etc. Public property and labor will not be diverted to any use whatsoever not authorized by the regulations of the service.

RULE 126.

Instruments, etc., not to be diverted from proper use.

The use of instruments, battery, line material, etc., for any purpose not directly connected with the operation and maintenance of the military telegraph lines, is expressly forbidden.

RULE 127.

Repairs.

Repairs will be made immediately by the repairman on duty at the station nearest the interruption.

Lineman to be assisted, etc.

On account of the importance of maintaining uninterrupted communication, every effort should be made to assist the lineman by locating the break with the greatest accuracy possible. (See Rule 36.)

General repairs, etc.

General repairs and betterment work will be made as occasion demands. Provisions should be made sufficiently in advance to have all material on the ground and properly assembled before the detail leaves the post.

Offices temporarily closed.

If for any reason it becomes necessary to close the office temporarily, a notice will be posted giving date, time of closing, and probable time of reopening.

Office hours Sundays and holidays.

On Sundays and holidays the hours of duty will be reduced when practicable.

Holidays.

The following holidays will be observed unless otherwise ordered: January 1, February 22, May 30, July 4, Labor Day, Thanksgiving Day, and Christmas. Whenever these days fall on Sunday, the following Monday will be observed as a holiday.

RULE 128.

Filing away messages.

Care will be taken in preserving and filing away messages sent and received. They will be filed daily in a wrapper or other satisfactory filing device, upon which the same data appearing upon the monthly message report form should be entered.

RULE 129.

Destruction of messages and cable tape.

Copies of all messages and cable tape, including Government business, will be destroyed by fire from month to month as they become 18 months old. The destruction should be witnessed by the assistant operator in charge, who will certify to the fact that he so witnessed the destruction. The certificate will state the period covered by the messages destroyed, and will then be sent to the officer in charge of the section or chief signal officer of the division, as the case may be.

RULE 130.

Legal summons to produce messages in court.

Whenever a subpœna is served upon an operator for the production of a private message and the subpœna appears to be properly prepared, it will be obeyed. All controversial questions as to its legality

and propriety will be left to the determination of the court. When the subpœna calls for the production of official messages the operator will report the fact to the chief signal officer of the division and await further instructions.

A subpœna is—

Definition of a subpœna.

A process to cause a witness to appear and give testimony, commanding him to lay aside all pretenses and excuses, and appear before a court or magistrate therein named, at a time therein mentioned, to testify for the party named, under a penalty therein mentioned. The purpose of a subpœna is to place the witness under the order and censure of the court, and a writ which does not effect this is not a subpœna within the meaning of the law.

Further, a subpœna is—

A process whereby a court, at the instance of a suitor, commands a person who has in his possession or control some document or paper that is pertinent to the issues of the pending controversy to produce it for use at the trial.

(From opinion of the Judge Advocate General of the Army, Nov. 11, 1907.)

No specific form of subpœna required.

No specific form of document is required, and the foregoing definition supplies the requisites which, in substance, are required for a proper writ.

RULE 131.

Advertising matter not to be displayed in offices.

The display in windows or on the walls of the offices of advertising matter of any kind other than that authorized by regulations is prohibited, except that a sufficient number of neat, legible calendars may be placed in suitable positions for the convenience of patrons of the line.

RULE 132.

Schedule of blank forms.

Blank forms in ample quantities will be furnished each station annually on requisition.

As new forms are added or old ones discontinued the printed schedule (Form No. 57) of these forms should be corrected accordingly. Obsolete forms should be destroyed.

Operators in charge will be held responsible for the proper supply of their stations. A deficit or surplus will be promptly reported to the officer in charge.

RULE 133.

Forms not to be diverted to improper use.

The printed forms will be used only for the purpose for which they are designed. Under no circumstances will a receiving blank or message envelope be furnished except in the proper delivery of messages. (See Rule 52.)

RULE 134.

Stationery.

An allowance of stationery will be supplied annually by the Signal Corps to each telegraph office not located at military posts. Offices at military posts will obtain the necessary stationery from the post quartermaster.

Operators in charge will be held responsible for the proper supply of their stations.

RULE 135.

Care of typewriters.

The typewriters furnished by the Signal Corps are of standard manufacture, and therefore expensive. With proper care they should last for many years. The lack of oil or its profuse use is perhaps the cause of more unserviceable typewriters than any other. The machines should be cleaned and oiled daily, the very slightest application of oil being all that is required. A woolen cloth slightly oiled is the best fabric for polishing the parts and preventing rust.

In adjusting the tension it should be remembered that the lighter the tension the longer the life of the machine, and likewise the less strength required to operate. A light, even, and regular touch should be practiced. The books of instructions furnished by the various manufacturers of the typewriters should be carefully read and the information contained therein put to practical use.

CHAPTER XII.

The attention of all officers, enlisted men, and civilian employees of the Signal Corps connected with the operation and maintenance of the Alaskan military telegraph lines is directed to the provisions of the following:

HEADQUARTERS DEPARTMENT OF THE COLUMBIA,
Vancouver Barracks, Wash., October 15, 1907.

Circular No. 21.]

In order to define the duties of the line of the Army in cooperating with the Signal Corps for the maintenance of the Alaska military telegraph lines, the following regulations are promulgated for the guidance of commanding officers of Alaskan posts:

1. The operation and maintenance of military telegraph lines, devolving on the Chief Signal Officer of the Army under the act of Congress, October 1, 1890, post commanders are not to interfere with such operation or maintenance except in cases of grave emergency and when speedy recourse can not be had to superior military authority.

2. The military telegraph lines in Alaska were primarily constructed in the interests of the Army, and their efficient maintenance is of both military and national interest. Post commanders are therefore enjoined to systematically facilitate operation and repairs, by detachments, supplies, and transportation.

3. It is the duty of post commanders to bring to the attention of the department commander inefficiencies and delinquencies, particularly with reference to discipline and care of men of the line, which are not promptly and satisfactorily adjusted by the signal officer in charge of the section. There should be similarly reported for decision administrative questions on which doubt arises and local adjustment is impracticable.

SUPPLIES.

4. Post commanders are responsible, through their staff officers, for the accumulation at their posts of such regular subsistence, quarters, ordnance, and other supplies as may be needed to properly equip, subsist, and shelter all enlisted men on duty at military telegraph stations. They are also responsible for the prompt and economical transportation to military telegraph stations of all supplies which may be turned over to them by the signal officers in charge.

5. Transportation of enlisted men to and from military telegraph stations to which they are assigned will be furnished by the post commander, on the written or telegraphic request of the signal officer in charge of the telegraph section. In grave emergencies, where telegraphic communication is interrupted, action is in the discretion of the post commander.

6. The utmost economy, consistent with efficiency, is enjoined on post commanders in transporting supplies, and recommendations regarding the transportation of supplies for the coming fiscal year will be made so as to reach these headquarters not later than March 1. It is to be understood, however, that all written or telegraphic requests for special transportation by signal officers must be promptly filled.

7. The issue of supplies must be preceded by a requisition either by telegraph or in writing from the signal officer in charge of the section, and receipts for

such issues must be given by the signal officer present, or by some designated and authorized repair man or operator of the Signal Corps.

PERSONNEL.

8. Men of the line will be detailed for duty at such telegraph stations, and in such numbers as may be specifically directed from these headquarters; the men to be of good character, excellent health, physical fitness, and free from quarrelsome tendencies. Such details will be made in post orders which will direct the soldier named to report to the signal officer in charge of the section, under whose control the soldier remains during the continuance of the detail.

9. Enlisted men of the line serving at military telegraph stations will report by telegram on the last day of each month their presence and the condition of their health to their respective post commanders.

10. Post commanders should arrange with signal officers in charge of telegraph sections to have, on the last of each month, telegraphic reports as to the conduct and efficiency of men of the line serving at military telegraph stations.

REPAIR PARTIES.

11. Repair parties of not exceeding one noncommissioned officer and three privates, which number may be augmented in emergencies in the discretion of the commanding officer of the post, will be furnished on the written or telegraphic application of the officer in charge of the telegraph section, for making current repairs that involve an absence of not more than ten days from a post.

12. Parties for permanent repairs or extended absences will be supplied only on the application of the chief signal officer, Department of the Columbia, in charge of the military telegraph lines, and by direction of the department

DISCIPLINE.

13. Commanding officers of military posts will be responsible for the discipline of the Signal Corps men stationed at or within the limits of their posts, and in this connection will require them to conform to suitable regulations as to deportment and conduct.

14. Post commanders will confine Signal Corps men at the request of the signal officers in charge, requiring the usual charges and specifications, and will cause them to be tried by summary court, except in the case of serious charges, which should be forwarded for the action of the department commander. They will cause to be tried men serving either within the garrison or brought therein for trial.

15. Officers of the Signal Corps should not be detailed as summary court officers, except with their consent, for the trial of men within the limits of a post. Summary court trials by officers of the Signal Corps outside of the limits of military posts will be conducted as authorized by the act of June 18, 1898.

16. Post commanders in passing upon sentences imposed upon men of the Signal Corps should take into consideration the inconvenience which would result to the military service from the incarceration of telegraph operators necessary for current work.

By command of Major General Greely:

W. P. BURNHAM,
Major, General Staff, Chief of Staff.

Official:

W. H. SAGE,
Major, Adjutant General.

General Orders, No. 212.

WAR DEPARTMENT,
Washington, November 12, 1910.

I. 1. Signal Corps Manuals, Nos. 2, 3, 6, 7, and 8, and such amendments thereof as have heretofore been published by the Chief Signal Officer of the Army, have received the formal approval of the Secretary of War, and in accordance with paragraph 1588, Army Regulations, when not in conflict with any of the provisions of Army Regulations or of general orders or circulars of the War Department, will have equal force therewith.

2. In all that pertains to the technical handling and maintenance of the cable and telegraph lines and the receipt and disbursement of funds pertaining thereto, the chief signal officer of the Department of the Columbia, under the direction of the Chief Signal Officer of the Army, in addition to his other duties, will perform the duties of officer in charge of the Washington-Alaska Military Cable and Telegraph System, and, as such, will exercise supervision over the duties of the Signal Corps in connection with the construction, operation, and maintenance of all cables, telegraph lines, and wireless installations of that system. The commanding general, Department of the Columbia, is charged with the discipline of all officers and enlisted men of the Army connected with the system, will render all practical assistance in its maintenance and operation, and will cause such inspections to be made by the inspector general of the department, or by his assistant, as will satisfy him that the discipline of the officers and men connected with the system is satisfactory and that their performance of duty is prompt and efficient. Whenever it is deemed desirable that instructions be issued to the officer in charge of the Washington-Alaska Military Cable and Telegraph System that will detach or separate him from his duties as chief signal officer of the Department of the Columbia, the Chief Signal Officer of the Army will forward to the Adjutant General of the Army such recommendation in the premises as may seem desirable. Upon receipt of such recommendation the Adjutant General of the Army will ascertain from the department commander whether or not the services of the chief signal officer of the department can be spared. In this connection the department commander will make every effort so to adjust the departmental business under the supervision of the chief signal officer as will enable him to carry out the wishes of the Chief Signal Officer of the Army as communicated to the department commander by the Adjutant General of the Army.

(1705928, A. G. O.)

CHAPTER XIII.

OPERATION AND MAINTENANCE OF WIRELESS STATIONS. (SEE APPENDIX.) GENERAL INSTRUCTIONS.

RULE 136.

Wireless stations part of military telegraph system.

All wireless stations in any division, which are maintained and operated by the Signal Corps, are considered a part of the military telegraph system of that division.

RULE 137.

Regulations governing stations.

Wireless-telegraph stations are subject to existing military regulations, and their status is the same as that of military telegraph stations. Wireless-telegraph stations located in Alaska form part of the Washington-Alaska Military Cable and Telegraph System, and are under the direct supervision of the officer in charge of that system.

RULE 138.

Messages not to be delayed.

The wireless rules shall be so interpreted as not in any way to cause delay in transmission of messages as authorized by the rules shown on the preceding pages.

RULE 139.

Distress messages to be expedited.

Nothing in these instructions is intended to delay distress messages. Every effort should be made by the personnel of the wireless stations to transmit such messages to every possible source of aid and to the addressee in the quickest possible time.

RULE 140.

Official and commercial messages.

Official and commercial messages will be handled according to the same rules and regulations, as far as practicable, that govern the handling of similar classes of messages on military telegraph lines.

RULE 141.

Hours of operation.

At stations where only one operator is on duty, he will listen in for at least five minutes at the beginning of each hour as often as

circumstances permit, and invariably at certain hours to be designated by proper authority. He will inform other stations concerning these hours.

RULE 142.

Hours of duty.

At stations where two or more operators are assigned, the hours of duty will be so arranged that under ordinary circumstances seven hours will constitute a day's work for each man; the meal hours will be so arranged that a sufficient force will be on watch during these times. The operator on watch will keep the telephone on his head connected to the receiving circuits in operative condition.

RULE 143.

Chief operator, duties and responsibilities.

The chief operator will have all duties and responsibilities pertaining to the chief operator of a military telegraph station. He will be held responsible for the enforcement of existing regulations and orders.

Upon assuming control of the station, he will immediately report the fact in writing to proper authority, and will report any discrepancies found in the items of public property on hand and those called for by the property records; calling attention to any items in poor condition, the responsibility for which might be a subject of inquiry by an inspecting officer.

He will keep a careful watch on all parts of the station and apparatus, towers, masts and rigging, engines, generators, etc., and make immediate report by letter or wireless, if necessary, of any repairs necessary which are beyond the capacity of the station force.

Whenever the breakdown of the transmitting apparatus appears imminent, immediate notification will be given proper authority in the most direct manner.

A routine will be made out which will provide for the efficient care and preservation of all parts of the station and apparatus, including protection from fire, the method of relieving operators, smoking regulations, and all other provisions necessary for the proper conduct of the station. A copy of this routine will be entered in each log book. A copy will also be posted in the operating room.

He will render a monthly report similar to the "Monthly line report" of the military telegraph lines, which will give the number of messages sent and received, the number and length of interruptions, conditions of static and interference, the maximum distance over which communication was held by day with a ship and a shore station, by night with a ship and a shore station, giving names of stations, dates, and hours, also any extraordinary distances over which messages were copied, stating names, dates, hours, and whether by day or night.

One copy of these regulations, to be marked "Station copy," will be kept in good condition and corrected to date by the operator in charge.

He will require each operator to inform himself as to his duties on reporting to the station and to sign his name and the date to the station copy of these regulations.

He will not permit any person not in the military service to reside at the station without special permission from proper authority.

He will instruct his subordinates in their duties whenever necessary, and will encourage them to become expert operators, to increase their knowledge of wireless-telegraph apparatus, and to take pride in the appearance and efficiency of their station.

Upon being relieved he will inspect the station with his successor; give the latter complete details of the condition of all property at the station, including towers, masts, buildings, furniture, machinery, and apparatus; furnish full information concerning the capabilities of the station, the method of obtaining supplies, etc.; and transfer all property to his successor. Any shortages or discrepancies will be handled as provided by existing regulations, and requisitions submitted for any material needed.

RULE 144.

Care in sending.

Dots and dashes should be sent *firmly* and *clean cut*, special care being exercised in spacing between letters and words.

RULE 145.

Extreme care to be used in assembling and operation of apparatus.

The instructions for setting up and operating the outfit will be carefully studied and followed.

Whenever the use of any part of the apparatus is not fully understood, additional instructions will be requested without delay.

Except in extremely urgent cases the apparatus must not be worked above its rated capacity.

RULE 146.

Care and maintenance of wireless apparatus.

Each operator in a wireless station will make himself thoroughly familiar with all wireless apparatus connected with the station. There should be on file at each office the plans and wiring diagrams of engines, dynamos, and circuits of the wireless sets, and each operator should be thoroughly familiar with all the details of the construction and operation of the complete plant. No enlisted man or civilian employee will make changes in the circuits or equipment without permission from competent authority except in the case of an emergency, in which event a full report will be made.

Wireless instruments require constant attention and care. All exposed parts of sending and receiving sets must be kept free from moisture and dirt. Daily inspections will be made of all connections and all contacts, especially in the receiving set. Contacts must be kept bright, clean, and free from dirt or other foreign matter. This care of the wireless outfit and the results obtained with it, even if it be of an early type, contribute to the real efficiency of the men and the marking of their records.

Wireless stations will be supplied with sufficient cleaning gear and implements to enable the interior and exterior of all buildings and of grounds of the stations to be kept in neat and orderly condition.

The men at stations will do as much as is practicable to keep instruments in excellent condition. Nickel-plated work can be kept bright by selvyt or other soft polishing cloth and fine metal polish. Hard rubber can be kept polished by using bisulphide of carbon at long intervals, or argentina metal polish. Mahogany can be polished by furniture polish. All nuts and bolts should be handled by proper fitting wrenches (not pliers), and screws by screwdrivers (not knives), in order that the surfaces be not impaired. All work will be done without shutting down the transmitting outfit whenever practicable excepting during the semiannual overhaul of the power-generating appliances. Whenever the latter are shut down, one man will be kept on watch, listening.

The following items of cleaning, polishing, and upkeep will be performed as indicated:

Daily.

Wipe off all instruments with care.

Tighten contacts of receivers.

Clean commutators and collector rings.

Clean zinc oxide from zinc spark points, if fitted.

Blow water out of air lines.

Fill cylinder oil cup and lubricate governor.

In winter, tend heating apparatus carefully to prevent freezing of water in cylinders, pipes, etc., and keep oil fluid if necessary.

Weekly.

Rub down slate panels and instrument cases, examine contacts on panels, and vaseline moving contacts lightly.

Blow out armatures and fields of motor generators, generators, and motors.

Lubricate chains on engines.

Clean bushings and exterior of transformers or induction coils.

Wipe off glass of condenser jars in air and clean contacts if necessary.

Clean jar rack.

Pump up compressed-air condensers, if installed.

Clean and polish inductances and exposed leads of transmitter.

Clean thoroughly and set up all contacts of transmitter with care.

Clean and polish spark gap.

Polish key.

Polish wood, metal, and rubber of receiver.

Vaseline lightly the contacts of receiver switch and aerial switch, if fitted, after cleaning.

Clean lightning switch and vaseline contacts lightly.

Clean all strainers.

Lubricate pistons of magnetic air valves and reducing valves.

Lubricate cylinders and bearings.

Lubricate working parts of valves in pipe lines and operate same.

Monthly.

Make cadmium tests of storage battery, if installed.

Clean oil-injection nozzles.

Pack stuffing boxes of valves in pipe lines.

Clean and tighten contacts of ground where accessible.

Semiannually.

Change oil of motor generators, motors, and generators.

Refit and line bearings of same.

Empty oil storage tank and clean gauze strainer.

Dismount and clean oil tubes of lubricating system.

Dismount and seat check valves.

Dismount and clean tubes of feed-oil distribution system.

Renew asbestos packing of oil pump.

Clean port openings, combustion spaces, exhaust ports, joint screws, and jackets of cylinders, and renew gaskets.

Dismount Leyden-jar condenser and clean thoroughly.

Lower aerial, wipe off insulators, oil blocks, overhaul halliards, and renew same when necessary.

Polish hard rubber of receiver, etc., using bisulphide of carbon.

RULE 147.

Inspection of equipment.

(*a*) Form No. 207 will be used in the annual inspection of Signal Corps wireless telegraph installations. The sheets should be filled out in accordance with the following instructions, one copy being furnished the post signal officer (operator in charge in case of Alaskan stations), the chief signal officer of the division, the Chief Signal Officer of the Army, and to the Chief of Coast Artillery where the station forms a part of the fire-control installation. In the case of Alaskan wireless stations, the copy specified for the chief signal officer of the division will be furnished the officer in charge Washington-Alaska Military Cable & Telegraph System.

(*b*) Copies of the report will be kept on file in the first three above-named offices for reference, especially in submitting requisitions. Requisitions should be submitted containing as much of the information indicated thereon as possible, so that necessary material can be furnished with the least possible trouble and delay.

(*c*) It is the intention that the several sheets of Form 207 shall each be filled out completely, if possible, by cooperation between the post authorities and the Signal Corps representatives at the time of the inspection, if not already on file. If the data available at the

post is not sufficient to enable the inspector to completely fill out the form, all available information should be inserted and all copies forwarded to the Chief Signal Officer of the Army through the chief signal officer of the division, where the information lacking will be supplied and copies distributed as indicated in paragraph (*a*). These will be retained as a permanent record. In cases where change is made in some part of the equipment, as indicated on the form, an entire new sheet be filled out by the Signal Corps inspector, to be substituted in all the files for the corresponding sheet describing the installation before the change.

It is intended in this manner to keep the records of the installation abreast of all improvements, enlargements, or changes, and the report should be made out with that object in view. When no changes have been made in the equipment, and the data is already on file, no new sheets of Form 207 need be submitted.

RULE 148.

Protective measures under extraordinary conditions.

At times of heavy atmospheric disturbances that would damage the detector and the receiving apparatus, the antenna will be grounded at the lightning switch. At times of lightning, all possible precautions will be taken for the protection of the operators and of the station and its equipment.

RULE 149.

Detectors.

All officers and enlisted men of the Signal Corps accountable for wireless property, or engaged in operating wireless sets, are directed to exercise great care in the use of silicon, perikon, or other dry detectors. These detectors are very expensive and must be handled with great care. In case a dry detector becomes unserviceable from any cause, it will be forwarded at once by registered mail to the Signal Corps Laboratory, Washington, D. C., for repair. (Circular No. 12, Signal Office, Sept. 3, 1908.) If electrolytic detectors are used, they should be examined daily, as the points are liable to be burned off. The electrolytic solution should be changed if it becomes weakened. Detector points should be kept in their most sensitive positions, and frequently tested.

RULE 150.

Transformers.

At all stations where wax-insulated transformers are in use, the temperature of the room should never exceed 70° F., or fall below 35°. This is necessary to minimize the tendency of the wax to soften and run at high temperatures and to crack at low temperatures.

RULE 151.

Storage batteries.

The general directions contained in Signal Corps Manual No. 3, 1910, will be carefully followed.

RULE 152.

Classification of messages.

Messages will be classified in the same manner as messages on military telegraph lines.

RULE 153.

Use of American Morse and Continental codes.

The American Morse code, alphabet, numerals, punctuation, etc., will be used for transmitting all messages by wireless telegraph, except when communicating with ships observing the rules adopted by the International Wireless Telegraph Conference of Berlin, 1906, as given in Appendix.

Operators will be required to become proficient in the use of the Continental code, but not until their proficiency in the use of the American Morse code is assured.

RULE 154.

Directions for handling messages.

Wireless messages will be handled according to the same rules and regulations, as far as practicable, as messages on the military telegraph lines.

All messages received from seaward for further transmission will be transmitted in the most expeditious manner by land telegraph, telephone, letter, or otherwise, depending on local conditions and circumstances, and a record of the times and methods of further transmission made on the originals.

Every message telephoned or telegraphed to a local land-wire office will be confirmed as soon as practicable and a receipt obtained, if possible. One receipt may cover a number of messages to be identified by their checks.

Calls will not be prolonged beyond 15 seconds and will be followed by the letters of the station calling. A reasonable time should be given for an acknowledgment before repeating the call.

The signal — - - — (9) will be taken to mean that one station communicating with another is being interfered with by the calling of a third, and that the last should wait. The signal — - - - — - — (bk) will be taken to have the same significance as on a wire line, that is, that the receiving operator wishes to "break" the transmitting operator.

If, while receiving, the operator should lose the sending station, he should wait a few minutes before trying to call. If he does not pick up the station after this interval, he should look over all the receiving apparatus and the antenna, as something may be wrong with the receiving station.

Should the transmission of a message be unduly delayed, the reason therefor will be stated as a postscript on the station copy.

RULE 155.

Privacy of messages.

No message, Government or private, will be made public, except by proper authority, and under no circumstances will the contents of any message be divulged by anyone of the personnel of a wireless station, except to the proper authority.

The name of the originating station will be spelled out in full, if necessary to avoid mistakes owing to a similarity of call letters.

RULE 156.

Schedules for operation of wireless stations.

Schedules for regulating the operation of wireless stations in Alaska will be prepared under the direction of the officer in charge, Washington-Alaska Military Cable & Telegraph System.

Government messages will be handled during the first half of each hour and commercial messages during the second half of each hour, as far as practicable, having due regard for any schedules in force. Whenever the business of a station is small in amount, the above need be observed only in so far as may be necessary to avoid interference with other stations.

RULE 157.

Annual inspection of wireless equipment.

All stations will be periodically inspected in accordance with existing regulations, and in addition to the information called for on Form 207, the following routine of inspection will be employed:

All machinery should run at normal speed for at least one hour, and a number of messages sent, test messages to other stations if necessary, and if it can be done without interference.

The action of the engines, governors, generators, rheostats, transformers, condenser, spark gap, and the inductances should be noted; also the condition of the receivers and their switches, batteries, connections, and detectors.

Special note should be made of the following:

(*a*) Condition of insulation of aerial, rigging, and leading-in-wires.

(*b*) Lightning switch.

(*c*) Sanitary arrangements.

(*d*) Cleanliness and neatness of buildings, inside and out, and grounds.

(*e*) Whether or not the apparatus for extinguishing fires is at hand and ready for use.

(*f*) Neatness and bearing of personnel.

(*g*) Care in preservation of records of the station.

(*h*) What regulations or orders are not carried out, and the reasons therefor.

(*i*) Whether or not the log book is properly kept and complete to date.

This report will contain information concerning each of the above paragraphs; will recommend alterations, additions, repairs, and supplies necessary to keep the station in efficient condition and the operators suitably quartered; and will contain such comments on and recommendations concerning any feature of the station, its personnel, its equipment, its usefulness, as the inspecting officer may deem necessary to include in it.

The general condition of the station as a whole will be stated, using the terms "excellent," "very good," "good," "fair," "indifferent," or "bad," and whether or not this condition appears to be due to the zeal and ability or to the neglect and inefficiency of the operator in charge.

RULE 158.

Unauthorized inspection of apparatus.

No unauthorized person will be permitted to make such close inspection of the wireless telegraph apparatus as will enable him to make a copy of the connections, of the general arrangement or construction of the instruments, nor will any person be permitted to make such frequent visits as may enable him to procure such information piecemeal.

There is no objection to informing visitors of the name of the company furnishing the apparatus, nor in their being given an explanation of the general method of sending and receiving.

RULE 159.

Fire protection.

There will be no smoking in the oil engine room nor in the vicinity of any house or tank for the storage of oil or gasoline.

The apparatus for extinguishing fire will be kept in readiness for instant use.

A fire drill will be held once each month. All apparatus except fire extinguishers will be thoroughly tested.

Chemical fire extinguishers will be placed on shelves in conspicuous places, easy of access. The directions on each extinguisher as to man-

ner of use, protection, and recharging will be followed. Twice annually, preferably at fire drill, they will be discharged and recharged.

RULE 160.

Correspondence with wireless companies enjoined.

All operators are strictly enjoined from engaging in correspondence with wireless companies or their representatives upon any matter relating to wireless apparatus or communication, except through regular official channels.

RULE 161.

Interference to be avoided; stations to work in harmony.

Operators will be required to "listen in" before starting to send. They must not break in on communications already going on except in cases of emergency or distress.

The least power necessary for reliable communication will be used between stations separated by short distances. Stations having a high-power and a low-power transmitter will regulate their use so as to cause a minimum of interference. All wireless communication in the vicinity of important seaports and other places where much business is transacted by wireless telegraphy will be reduced to a minimum, and all unnecessary or unauthorized sending will be prohibited in such places.

Attempts to get messages through by using superior power to interrupt communications going on will not be countenanced, except in cases of emergency or distress.

A special written report giving full particulars will be made of any unnecessary interference experienced.

Schedules for the prevention of interference ordered will be followed with care, except in case of emergencies.

The wave lengths of unknown interfering stations will be carefully noted, and attempts made to locate them by listening-in for messages, when practicable.

RULE 162.

Offensive language, etc.

Signal Corps stations are required to work in harmony with all other stations. Particularly, they should set good examples in regard to prompt dispatch of business in hand, and forbearance when communications with which they would interfere are going on among other stations.

The use of the wireless apparatus to reply to any message containing offensive language with similar language will be considered a grave offense.

The use of any abusive or vulgar language should be reported.

RULE 163.

Personal conversation etc. forbidden.

Personal conversation between operators, greetings, unnecessary inquiries concerning messages to be sent, etc., are forbidden.

RULE 164.

Hydrographic information to be supplied if available.

Storm warnings, hydrographic information, etc., will be furnished to shipping on request, if available. Every possible aid will be rendered to shipping by wireless stations in times of distress and emergency.

RULE 165.

Station records.

The following books and records will be carefully preserved at all stations for information of inspecting officers and the operators in charge:

(a) Copies of all orders received from any source.

(b) Copies of original messages sent, press copies of messages received, and relay copies of messages relayed should be preserved.

(c) Copy of station routine approved by officer immediately in charge.

(d) A log book.

RULE 166.

Log book.

At each wireless station a log book will be kept, in which will be recorded, twice daily, the temperature, the direction of the wind, the force of the wind, and the state of the weather.

All meteorological phenomena, such as lightning, static, aurora borealis, fog, mist, rain, or snow, should be recorded. The weather conditions which appear most favorable and those which appear most unfavorable for the receipt of signals should be noted.

The duration and relative intensity of atmospheric disturbances should be recorded, using such terms as "continuous," "irregular," "intermittent," "strong," "moderate," "weak," "faint," and giving the hour when they commence and the hour when they are at a maximum, and the hour when they cease.

Any regular recurrence of atmospheric signals and their wave lengths should be noted.

The hours during which the aerial is grounded on account of lightning should be noted.

The following will be entered daily in the log book:

Names of stations heard.
Time.
Wave lengths.
Distance.

Any other items of interest, as sharpness of tuning, character of spark, etc.
Names of stations with which messages have been exchanged.
Time.
Sending power.
Sending wave length.
Receiving wave length.
Distance.
Any other items of interest, etc.

In case current is supplied from outside source and a recording wattmeter is in use, the reading of the wattmeter at noon of each day will be recorded.

Each operator should keep a record of his best adjustments for receiving different stations.

The remarks in the log will be full and will include any items of interest and a typewritten sheet, properly dated and headed "Remarks," may be pasted securely in the book.

Whenever entries of unusual interest are made on either page of the log book for any day, they will be indicated by a star in upper right-hand corner of right-hand page. Such items deemed of special importance will be immediately reported to proper authority in writing, or by wire or wireless, if the occasion demands.

Should a new station of a foreign government or for commercial purposes be heard, the wave length should be noted, the location, call, etc., ascertained, and in case of the Alaskan stations, the information forwarded to the officer in charge of the Washington-Alaska Military Cable & Telegraph System by service message.

The results of any special tests ordered will be entered in the log.

A statement will be made daily that the station routine has been carried out, or if not, in what respect and the reason therefor.

The maximum distance over which communication with a ship and with a shore station was held by day and by night during the month will be stated; also the distance over which messages were copied day and night in case any extraordinary distance was covered. The date, hour, and the name of the stations will be given.

APPENDIX.

RULES ADOPTED BY THE INTERNATIONAL WIRELESS TELEGRAPH CONFERENCE, 1906.

The United States of America is not a signatory to the Berlin Conference. Foreign vessels may be expected to be familiar with and to observe the regulations of that conference generally, but they are not obligatory for American vessels.

Commercial vessels sailing under the flag of the United States of America usually employ the American Morse code; naval vessels of the United States are instructed to use that code in communicating with the Army wireless stations, but foreign vessels will in many cases be found to conform to the Berlin Conference, and the following rules must be observed in communicating with them:

"TRANSMISSION OF WIRELESS TELEGRAMS.

"*a.* SIGNALS OF TRANSMISSION.

"1.

"The signals to be employed are those of the Morse International Code.

"2.

"Ships in distress shall use the following signal:

repeated at brief intervals.

"As soon as a station perceives the signal of distress it shall cease all correspondence and not resume it until after it has made sure that the correspondence to which the call for assistance has given rise is terminated.

"In case the ship in distress adds at the end of the series of her calls the call letters of a particular station the answer to the call shall be incumbent upon that station alone. If the call for assistance does not specify any particular station, every station perceiving such call shall be bound to answer it.

"3.

"1. The call letters following the letters

'P R B' signify that the vessel or station making the call desires to communicate with the station called by means of the International Signal Code.

"The combination of the letters P R B as a service signal for any other purpose than that specified above is prohibited.

"2. Wireless telegrams may be framed with the aid of the International Signal Code.

"Those addressed to a wireless telegraph station with a view to being forwarded by it are not to be translated by such station.

"*b*. ORDER OF TRANSMISSION.

"4.

"Between two stations wireless telegrams of the same order shall be transmitted one by one, by the two stations alternately, or in series of several telegrams, as the coastal station may indicate, provided the duration of the transmission of each series does not exceed 20 minutes.

"*c*. METHOD OF CALLING WIRELESS STATIONS AND TRANSMISSION OF WIRELESS TELEGRAMS.

"5.

"1. As a general rule, it shall be the shipboard station that calls the coastal station.

"2. The call should be made, as a general rule, only when the distance of the vessel from the coastal station is less than 75 per cent of the normal range of the latter.

"3. Before proceeding to a call the station on shipboard shall adjust its receiving apparatus to its maximum sensibility and make sure that the coastal station which it wishes to call up is not in correspondence with any other station. If it finds that any transmission is in progress it shall wait for the first pause.

"4. The shipboard station shall use for calling the normal wave of the coastal station.

"5. If in spite of these precautions the public exchange of wireless telegrams is impeded at any place, the call shall cease upon the first request from a coastal station open to public correspondence. The latter station shall in such case indicate the approximate length of time it will be necessary to wait.

"6.

"1. The call shall comprise the signal

▬ ● ▬ ● ▬

the call letters of the station called repeated three times, the word "from" ('de') followed by the call letters of the sending station repeated three times.

"2. The called station shall answer by making the signal

▬ ● ▬ ● ▬

followed by the call letters of the corresponding station repeated three times, the word "from," its own call letters, and the signal

▬ ● ▬

"7.

"If a station called does not answer the call (Article 6 (1)) repeated three times at intervals of two minutes, the call shall not be resumed until after an interval of half an hour, the station issuing the call having first made sure that no wireless-telegraph correspondence is in progress.

"8.

"1. As soon as the coastal station has answered, the shipboard station shall make known to it:

"(a) The distance of the vessel from the coastal station in nautical miles;

"(b) Her true bearing in degrees counted from 0 to 360;

"(c) Her true course in degrees counted from 0 to 360;

"(d) Her speed in nautical miles;

"(e) The number of words she has to transmit.

"2. The coastal station shall answer, stating the number of words to be transmitted to the vessel.

"3. If the transmission can not take place immediately, the coastal station shall inform the station on shipboard of the approximate lengh of time that it will be necessary to wait.

"9.

"When a coastal station receives calls from several shipboard stations the coastal station shall decide the order in which the shipboard stations shall be admitted to exchange their messages.

"In fixing this order the coastal station shall be guided exclusively by the necessity of permitting each station concerned to exchange the greatest possible number of wireless telegrams.

"10.

"Before beginning the exchange of correspondence the coastal station shall advise the shipboard station whether the transmission is to be effected in the alternate order or by series (Article 4); it shall then begin the transmission or follow up the preliminaries with the signal

▬ ● ▬

"(invitation to transmit).

"11.

"The transmission of the wireless telegram shall be preceded by the signal

▬ ● ▬ ● ▬

and terminated by the signal

● ▬ ● ▬ ●

followed by the name of the sending station.

"12.

"When a wireless telegram to be transmitted contains more than 40 words, the sending station shall interrupt the transmission after each series of about 20 words by an interrogation point

● ● ▬ ▬ ● ●

and shall not resume it until after it has obtained from the receiving station a repetition of the last word duly received, followed by an interrogation point.

"In the case of transmission by series, acknowledgment of receipt shall be made after each wireless telegram.

"13.

"1. When the signals become doubtful every possible means shall be resorted to to finish the transmission. To this end the wireless telegram shall be repeated at the request of the receiving station, but not to exceed three times. If in spite of such triple repetition the signals are still unreadable, the wireless telegram shall be canceled. If no acknowledgment of receipt is received, the transmitting station shall again call up the receiving station. If no reply is made after three calls, the transmission shall not be followed up any further.

"2. If in the opinion of the receiving station the wireless telegram, although imperfectly received, is nevertheless capable of transmission, said station shall enter the words 'reception doubtful' at the end of the preamble and let the wireless telegram follow.

"14.

"All stations are bound to carry on the service with as little expense of energy as may be necessary to insure safe communication.

"*d.* ACKNOWLEDGMENT OF RECEIPT AND CONCLUSION OF WORK.

"15.

"1. Receipt shall be acknowledged in the form prescribed by the International Telegraph Regulations, preceded by the call letters of the transmitting station and followed by those of the receiving station.

"2. The conclusion of a correspondence between two stations shall be indicated by each station by means of the signal

followed by its call letters.

"*e.* DIRECTIONS TO BE FOLLOWED IN SENDING WIRELESS TELEGRAMS.

"16.

"1. In general, the shipboard stations shall transmit their wireless telegrams to the nearest coastal station.

"2. A sender on board a vessel shall, however, have the right to designate the coastal station through which he desires to have his wireless telegram transmited.

"3. The station on shipboard shall then wait until such coastal station shall be the nearest. If this can not be done, the wishes of the sender are to be complied with only if the transmission can be effected without interfering with the service of other stations.

"7. DELIVERY OF WIRELESS TELEGRAMS AT THEIR DESTINATION.

"17.

"When for any cause whatever a wireless telegram proceeding from a vessel at sea can not be delivered to the addressee, a notice of nondelivery shall be issued. Such notice shall be transmitted to the vessel if possible. When a wireless telegram received by a shipboard station can not be delivered, the station shall notify the office of origin by official notice. Such notice shall be

transmitted, whenever practicable, to the coastal station through which the wireless telegram has passed in transit; otherwise, to the nearest coastal station.

"18.

"If the ship for which a wireless telegram is intended has not signaled her presence to the coastal station within the period designated by the sender, or, in the absence of such designation, by the morning of the twenty-ninth day following, the coastal station shall notify the sender.

"The latter shall have the right to ask, by a paid official notice, sent by either telegraph or mail and addressed to the coastal station, that his wireless telegram be held for a further period of 30 days for transmission to the vessel, and so on. In the absence of such request, the wireless telegram shall be put aside as not transmissible at the end of the thirtieth day (exclusive of the day of posting).

"If, however, the coastal station has positive information that the vessel has left its radius of action before it has been able to transmit to her the wireless message, such station shall so notify the sender."

INDEX.