

BOOK OF RULES

For the Information and Guidance

of the Employees of the

United Wireless Telegraph Company.

Corrected to January 1, 1909.

GENERAL OFFICES:

42 BROADWAY, NEW YORK, U. S. A.



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The object in making a book of rules is to provide uniformity in the service.

Rules are made to be strictly observed, to provide a more perfect system by which the operation of the service can be uniformly maintained and the enforcement of the same will be enjoined on all.

The necessity for strict attention to duty and an earnestness of service, and the employees of every grade are expected to give the Company their cheerful assistance and support at all times.

The highest standard of efficiency is the surest road to success.

The duties of the General Officers of the Company are fully described in the By-laws.

SUPERINTENDENTS

1. The steamship and shore stations operated by this Company are under the immediate supervision of the Superintendent of the division.

2. Each division, unless otherwise specially ordered, comprises all property of the Company with its limits.

3. Superintendents of divisions report to and receive their instructions from the General Officers.

4. They have full supervision over all employees in their respective divisions, with power to employ and dismiss.

5. They are charged with the supervision and care of stations and will exercise due diligence in the discharge of their duties, holding it foremost that the more perfect their service the greater the reliance placed by the public and consequently the highest average of revenue to be obtained.

6. The employees of each division will obtain their instructions from and report to the superintendent:

OPERATORS

7. In case of accident or any unusual occurrence they will promptly report the same to the Division Superintendent and be guided by his instructions.

8. There has been provided a sending blank form, number 1A, the headlines of which are self-explanatory. You will see that the instructions given thereon are carefully complied with. This is done to protect you against claims for over charge or delay, and to enable you to make up your daily and monthly reports.

9. Form No. 2A. - For receiving blanks. Care must be taken that none are used except for that purpose. Form No. 2A must not be given to any person in blank.

10. Form No. 3A - For delivery and receipt must be carefully complied with.

11. Form No. 4A - A new report blank for both sent and received "aerograms," has been provided. It becomes your duty to carefully fill in under the various headings the subject matter called for.
12. On shore stations, unless otherwise instructed, these daily report blanks must be forwarded with your remittance to the cashier, and a copy of the same held by you, for compiling of the necessary data for the monthly report.
13. These daily reports must agree with the monthly report, a form for which blank No. 5A is furnished.
14. Special attention is called to the necessity for accounting, in a manner shown on the several report blanks.
15. Your particular attention is called to the necessity for the fullest information on the free message blank - form No. 6A. Any further instructions will be furnished to you by the Superintendent.
16. On shipboard the above named report blanks, may be rendered under date, to cover an outgoing trip from each terminal port, and the same manner of settlement with Cashier at your home port, unless otherwise instructed. Special instruction will be given in all instances where this plan is inoperative.
17. Form No. 7A - For rendering your account, covering the ocean daily newspaper. The Aerogram - will also be furnished to you. This form must also be properly filled out and returns made to the Cashier.
18. Form No. 8A - For petty cash, properly filled in and checked, must be listed on form 15A.
19. Form No. 9A - Must be rendered for each trip. This form is not intended to work hardship on the employees; it will be considered a certificate of merit, by which his zealously, both in this and the steamship company's interest, will receive just and due consideration.
20. Form No. 10A - Is intended for stations and ship operators to fill in when ordering supplies of any nature.
21. Requisitions on Form No. 10A must be made quarterly, thirty days in advance of requirements, and a sufficient quantity ordered for the ensuing quarter.
22. Form 11A - The ship's log must have careful attention, and chronicle every happening of interest.
23. Form No. 12A - Is intended for the use of the inspectors, installers and operators.
24. Form No. 13A - Is the annual frank, issued from the General Offices.
25. Form No. 14A - Is the Aerogram envelope, for the delivery of the aerograms.
26. Form No. 15A - Is for compiling bills recorded on Form No. 8A.
27. Form No. 16A - Is the desk number sheet, for recording Aerogram numbers sent and received.

28. Form No. 17A - Is a letter head for station and boat operators communicating to the General Officers - NOT for private correspondence.

29. Seek advice from the Superintendent on all points in which you are in doubt. The necessities of a great service are best met by the freest intercourse between employees of all grades. Many things that you would consider trifling are of the utmost importance to maintain perfect harmony with the public, the steamship companies and the General Officers of the Company. It is the detail that makes the aggregate, and by watching these carefully the employee not only benefits himself but enhances the Company's interest.

30. The fact is apparent that the service is not giving the Company all the revenue it should; this may have been due in a measure to the financial situation, but as this condition is now very materially improved there should be a corresponding increase in revenue. Operators must be diligent and display at all times an interest in their work, endeavoring by all means to bring their receipts up to a high standard. (authors note: in other words don't rent deck chairs to the passengers on the side for extra money)

31. They are requested to make full reports on all subjects. A lethargic and passive interest in this business is quickly noticeable by passengers and the public, and is injurious to the Company. The utmost zeal consistent with polite attention is necessary to popularize the service and wherever business is intrusted to you every effort must be made to dispose of it at the earliest moment, for promptness and the confidence of the public in our Company are the sure up builders of the service.

32. The public are quick to see slovenliness, disorder, and unpreparedness to transact business. Everything about your station must be in perfect condition. There will be no excuse accepted for departure from this rule. The report of the inspector will be closely scrutinized for all infractions and the employee held to a strict accountability. Indifference to the Company's interest give rise to dissatisfaction and every means will be adopted to avoid this condition.

33. No man succeeds in business who is careless. He should bring the same intelligent action into this service and practice the same earnestness as he would display in his own private matters.

34. Get into the system, follow it, be guided by the experience and instructions of your superiors. Let it become a fixed habit with you to devote every-minute the Company pays you for to their interest. To grow in a service, to succeed in any position, a man must be prompt and reliable and thus attain popularity.

35. Many instances have come to the attention of the officers showing that through carelessness, ignorance, or design, the equipment in land stations and on shipboard has been injured and in several instances rendered inoperative resulting in great loss to the Company, in revenue and reputation. It is incumbent upon all operators to understand fully the object of each part of the equipment to the whole and know where to look for faults.

36. An operator to be valuable to himself and this Company, must become thoroughly familiar with each path the electrical current takes, both in sending and receiving and know the reasons therefore, and know where to look for and how to remedy faults.

37. You are positively instructed not to take your instrument apart, except for faults, not in any manner to deface or mutilate the same., nor to disconnect for experimental purposes any part of the equipment or change the connections of the transmitting helix after it has been adjusted by the inspector.

38. Many operators on their arrival at the home port leave the steamer and do not return until sailing day. It will be to their interest to see the inspector while he is on board and from him learn more about the care of their station, also what is necessary to keep the station in thorough working condition.

39. Difficulty is frequently experienced in communicating with ships when leaving or entering the home port. It is evident that the operators are not listening in, resulting in serious losses to the Company. It is imperative that the operator be continually on duty within one hundred (100) miles. If necessary to absent himself he must advise the nearest shore station.

40. The schedule of hours posted in the operating room must be strictly adhered to. All bulletins regulating the service must be kept in a folder, and the operators be familiar with its contents.

41. Free messages are authorized by the franks of the Company on account of contracts. All others must be approved by the captain of the steamship, with a stamp or in writing. Free messages of employees must be restricted in number, and to cover an emergency only.

42. Intercommunication between vessels at sea, within the zone of their operation, must be maintained and the operators must assist one another in the disposal of business.

43. The steamship company's service, as well as our own, is frequently disarranged on account of the absence of information regarding the position of the vessel at sea. These reports are of paramount importance and must be forwarded as soon as communication with the shore station is established.

44. Every effort must be made to furnish news items of importance to the port offices, as well as the vessels. The publicity is desired for the benefit of the Aerogram, the press, and to popularizing the service.

45. All apparatus in use on the boats and stations of the company, is the property of the United Wireless Telegraph Co., and the International Telegraph Construction Co. All other names must be obliterated.
46. The operator on shipboard must conform to, and be governed by, the instructions of the captain.
47. Distance messages for the officers of the steamship company must be signed by the captain.
48. Avoid interference with all stations working at all times.
49. If for any cause aerograms are held aboard your ship, or at your stations beyond a reasonable time, note the same and the reasons on the back of the message and explain them on Form No. 4A. The various headings on the sending and receiving blank must be carefully filled.
50. Operators must be on board their ship three hours before sailing and test out with port office, making record of the same on thier log, and the log of the shore stations must show a like record. Operators who fail to comply with this rule will not be retained in the service.
51. The necessity for a neat, clean and perfectly legible copy and report, is earnestly enjoined on all.
52. Operators will report promptly all vessels or stations of this or other companies that decline to work with them. They will be governed at all times by the hours arranged from time to time by bulletin or otherwise at ports distant from the home office.
53. Considerable revenue should accrue to the Company from a report of steamers. Customers desire these and arrangements should be made to establish such service at each of the home ports.
54. The stations regularly assigned for the transmission of news to the vessels at sea must provide themselves with the latest information obtainable and in as short and concise a manner as possible give as many items as are necessary to fill the space for such purpose in the daily ocean newspaper. THE AEROGGRAM. Operators on shipboard will be advised of such stations, and will report whenever they fail to obtain the necessary news items. The number of words sent and received must be shown on the station and ship log.
55. The transmitting set, when attuned to the proper wave length by the inspector or other authorized person, must not be changed without authority.
56. So far as practicable two spare jars will be kept at each station to replace any that may be broken. Operators will not use a spark greater than one inch. Should the operator break down his condensing jars, below the required number, the necessity for changing the tuning of his transmitter becomes apparent. He shall make a report to the inspector at the end of his trip, which must cover the cause.

57. It is an error to suppose that widening the anchor spark gap is essential to transmitting. The gap must be kept as closely adjusted as possible to prevent inefficiency and deteriorating effects in its current delivery.

58. All variable contacts must be kept scrupulously clean.

59. The R.P.M. of the motor generator must be kept as uniform as possible. Care must be exercised in this particular not to speed beyond the rated capacity of the machine.

60. The Antenna, as approved, unless prostrated by storms or other causes, must not be disturbed. The determination of the wave length is made from the spread of antenna.

61. The practice of removing the top of the tuner, must be discontinued. To repair contacts, the bottom of the tuner should be removed. No connections are to be changed. After the necessity for the opening of the tuner box has received attention the bottom must be carefully replaced and the cause reported.

62. The telephone receivers must be hung on the hook and when required, carefully removed. The repairs necessary on account of telephones falling are a serious matter, and every precaution must be taken against such an accident. Operators must not remove the diaphragm from the case.

63. All loose connections should be prevented and the instrument should receive daily inspection by the operator to prevent an open circuit from this cause.

64. Operators desiring to leave the service must remain on duty until the relief operator arrives. This request is made in order that there may be continuous service with no lapses.

65. The following signal code will apply to all stations, and be continuous, unless changed by special order:

- 1 — Wait a minute.
- 2 — What is your distance out? (for use in marine service.)
- 3 — Signal for signing off, at end of sending.
- 4 — Are you clear, or, start me.
- 5 — Repeat.
- 7 — Have no business for you.
- 8 — When do you expect to dock? (For marine work.)
- 9 — Interference too strong to read you.
- 11 — Please keep out, or stop interfering.
- 13 — Understand, or, Do you understand?
- 14 — Send to me for a for a few minutes for test.

- 15 — Repeat signature.
- 17 — Repeat address.
- 18 — Repeat body of message.
- 19 — You come in faint.
- 21 — Have you any report of ... or, Get quick report on ...
- 23 — Please copy and repeat to ...
- 25 — How do you get me?
- 27 — Get you fine.
- 29 — I am going to test.
- 30 — Finish, or the end.
- 31 — I have blown out leyden jars.
- 35 — I am fixing motor generator.
- 37 — Will be out of business for ...

66. A GRAND SIGNAL OF DISTRESS, as provided in the Service Regulations of the International Wireless Telegraph Convention, signed at Berlin, November 3, 1906, has been adopted by this company. Ships in distress shall use the following signal **SOS** repeated at brief intervals.

As soon as a station perceives the signal of distress it shall cease all correspondence and not resume 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 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.

67. A copy of the International Wireless Telegraph convention, the Service Regulations annexed thereto, and a Handbook for Wireless Telegraph Operators working installations licensed by the Postmaster-General of Great Britain, of 1908, will be found in the office of the Superintendent of the division. Operators of ship stations touching or desirous of communication in British waters will conform to the instructions given in the Service Regulations and Handbook.

68. Operators in the employ of this Company will familiarize themselves with the list of wireless telegraph stations of the world, including shore stations, merchant vessels, revenue cutters, and the vessels of the United States Navy, corrected to October 1st, 1908, a copy of which will be found in the office of the Superintendent of the division.

INSPECTION

69. In each division of the Company's service an inspector schooled in the art should be appointed to thoroughly test the apparatus for efficiency, to see that the stations on ship and shore are kept in a manner to render at all times the most effective service, and to recommend such changes as will place the apparatus on the highest plane of electrical condition.

70. The operators will see that changes recommended by the inspector are rigidly adhered to. The inspector shall make record in his inspection book of all necessary changes in the equipment, as well as all conditions at station or on shipboard that are not in accord with the best interests of the service, and give copies of the same to the proper officers for correction of the service. He shall correct such minor faults in the equipment as are necessary for immediate operation, leaving those of graver importance for the proper attention of the installer or repair man.

71. He will be furnished with necessary electrical instruments for determining the wave lengths and station capacity and will be held to a strict accountability for the faithful and intelligent discharge of his duties.

72. He will be held responsible for all instruments and tools intrusted to his care, as well as those in the hands of installers and repair men.

INSTALLERS AND REPAIR MEN

73. Installers and repair men will be guided in their work by the instructions given by their superior officers, after the standard of installation has been approved. They will be selected for their known skill in the art and must be practical workmen. This branch of the service requires men of no ordinary capacity--on the contrary only those having a well grounded knowledge of the system. They should, so far as possible, be able to make such electrical tests as will enable them to know the efficiency of each piece of apparatus and its relation to the whole installation. Their work must be done promptly and in the most substantial manner. Temporary Connections are not to be left for the future and then forgotten; each piece or work must be completed so far as possible at the time engaged thereon.

74. They shall obtain authority from the proper officer for all changes due to conditions found on the work that are not in accord with the plan furnished.

75. Parts of the equipment needing repairs, replacement, or renewal, must be followed up through the head of the department, obtained from the factory and installed at once; the defective devices to be returned to the factory.

76. Reports of the inspectors must be carefully studied and complied with at the home port.

77. Where it is necessary that electrical measurements be made by portable capacity determining instruments, they shall call upon the inspector to make such tests.

78. At all installations removed from the home offices such instruments as are necessary will be supplied.

79. All the necessary tools will be furnished and charged to the party to whom they are furnished, who will sign a receipt at the factory or office for the same when removed from the regular tool box by any person authorized to use the same. An inventory showing the number and character of the tools taken will be left in the box and a copy of the same taken by the installer or repair man, and he will see that the tools are returned. If not returned the same will be charged to his account.

ACCOUNTING

80. Under the By-laws governing this service the accounting is carried on in such manner as the Treasurer may direct.

81. All employees handling the funds or accounts of the Company are under his direction. He is charged with the responsibility for all capital stock transactions.

82. At the principal ports of entry the Cashier acts for the Treasurer in the receipt and disbursement of funds.

CONTRACTING DEPARTMENT

83. All matters pertaining to the making out and execution of contracts will be under the immediate supervision of the General officers of the Company. Contracting agents will report to and receive their instructions therefrom.

SCIENTIFIC DEPARTMENT

84. Matters pertaining to this department will be carried on under the supervision of the General Officers of the Company. All suggestions, improvements or inventions by employees will be submitted through the heads of departments and considered promptly, due credit being given in all instances to the person with whom the invention originated. All employees coming in contact with the practical operation of the service are invited to submit ideas or experiences in writing that will tend toward improvement or simplification of the devices.

PURCHASING AGENT

85. All contemplated purchases for the Company must be submitted to the purchasing agent (unless the best prices make it incumbent upon us to in emergency) for approval. His facilities for obtain-exercise the utmost care in this direction.

86. He will not place orders without obtaining bids from several well-known houses in the trade, thus enabling the Company to take advantage of all market fluctuations.

FACTORY

87. The manufacturing department will be under the supervision of the General Officers. All material and work must be ordered on requisition, approved by the officer in charge. No material should be ordered from the outside except when not in stock in the factory, and when this is ascertained the order should be made on the Company blank, signed by the purchasing agent and approved: all apparatus used by the operating department shall be the standard equipment.

TARIFF

88. Rules governing this branch of the service will be issued from time to time, whenever changes are made. Operators will familiarize themselves with all rates for this and other lines. A thorough knowledge on all this and other line tolls and special rates is required. Later on it may become necessary to issue a regular tariff book or publish such changes in the Aerogram.

89. All original aerograms are taken at the sending station at the sender's risk of delay, non-delivery or lost. All original messages must be prepaid. Great care must be exercised in the collection of tolls. No excuses will be taken for over or under charge. The rates for this line are defined and a full explanation given in the tariff books of the Western Union and Postal companies, with which each station should be supplied.

90. Answers to aerograms may be sent collect. The operator of the station at which the original aerogram is filed will explain this rule to the sender and, whenever possible, collect the amount for the answer. In case no answer is received this amount must be refunded; if not refunded it must be remitted to the Cashier, with proper explanation.

91. The fact that aerograms are taken at the sender's risk will not be accepted as reason for not using every means to send the aerogram at once, and hasten its delivery.

92. All amounts collected for tolls must be paid to the Cashier. In case an aerogram is accepted on shipboard to be sent to a shore station, if it is found impossible to forward the same through that station and it is finally disposed of at a station where the tariff for other lines is less or greater, the surplus amount must be accounted for in the "remarks" column of Form 4A, and the surplus tolls remitted to the Cashier. Where a greater amount than that originally collected is required, the sender should be apprised of the fact and every effort made to collect the difference. These rules must be carefully complied with to avoid claims for over-charge.

GENERAL RULES

93. All officers who employ men must exercise great care and discrimination in selecting them. They must carefully inquire into the habits of applicants for employment, and no person shall be given employment unless strictly temperate. As a general rule, vacancies will be filled by promotion, and the efficiency of the entire service depends, therefore, upon proper original selections.

94. As the habitual use of intoxicating liquors is incompatible with the duties of all employees, those who abstain from their use will be more favorably considered for promotion. The use of liquors by employees on duty is positively forbidden, and the penalty for disregarding this order is dismissal from the service. Drunkenness on or off duty will not be tolerated.

CARE OF APPARATUS

95. The primary exciting current should be of a single phase 60 cycle form and have an E.M.F. of 100 to 110 volts. One of the primary circuit leads should be carried from the source of E.M.F. direct to one of the terminals projecting from the end of the transformer case. The other lead should be so laid that it connects the source of E.M.F. with the other terminal projecting from the end of the transformer case, but before reaching this terminal the lead must conduct the current to the sending key and from it to one of the terminals on the FRONT of the aerial switch base, and from the mate of this terminal the current is lead to its destination. The primary current is carried to the aerial switch terminal specified, so that the receiving circuits are cut out before the operator can begin sending. Heavily insulated No. 6 or No. 8 standard or solid conductor answer well for this circuit.

96. In both the 1 and 2 K.W. sizes of transformer the end binding post projecting through the top of the case is for the attachment of wire leading to the condenser.

97. Connect the end binding post projecting through the top of the transformer case with either the two terminals projecting through the top of the condenser rack. This lead should be attached to this terminal by the lower of the two thumb nuts. Use No. 4 or No. 6 heavily insulated wire for this part of the circuit.

98. Set the spark muffler and helix on top of the condenser rack connecting the lower terminal of the spark gap to either of the binding post projecting through the top of the condenser, clamping the lead fast by means of the upper of the two thumb nuts. To the other binding post, leading to the condenser jars, connect the flat strip provided at its end with a spring contact clip. This flat strip is used to make connection to any one of the several turns of the sending helix and thus vary the length of the emitted waves.

99. Connect the upper terminal of the spark gap to the earth, using as a ground connection metal plates or tubes having an area of at least 200 sq ft. in good electrical contact with moist earth. If the location of the station is such that it can be done it is best to sink the ground plate in some body of water. A lead of No. 2 stranded copper cable is suitable for this purpose, but in all cases the lead from the spark gap terminal to the ground should be as short as possible.

100. From any one of the anchor spark gap terminals there should be run a lead to the end of which is attached to a second contact clip to be used in connecting the aerial with any one of the turns of the sending helix. No. 10 stranded conductor answers well for this purpose.

101. Both the inside and outside of the porcelain spark muffler must be carefully wiped off before setting up. All deposited metallic dust and moisture must be removed by carefully wiping the interior surfaces once in at least each twenty-four hours.

102. A spark of from $\frac{1}{2}$ " to $\frac{3}{4}$ " in length gives the best results, but the proper length of the spark can only be determined by testing the station out with other stations after the aerial is in position.

103. From each of the three binding posts on the back of the type D syntonizer run a lead of No. 14 rubber insulated wire to the hinge terminals of the aerial switch.

104. From the ground terminal of the aerial switch lead a No. 14 wire to a good earth connection; when practicable it is well to connect this lead with the large earth plates referred to in above.

105. From each of the two terminals mounted on the vertical fiber plate of the aerial switch lead a No. 14 wire to the two anchor spark gap terminals to which the aerial wires are attached (NOT to the terminals to which lead mentioned in No. 101 is attached.)

106. Now bring the aerial wires in two equal groups, separated from each other until within a few feet of the insulators leading into the station, which they enter as two single wires.

107. The disposition of these aerials should be such that the two groups are approximately of equal area and length. This feature should be borne in mind when locating the mast and station house.

108. Connect the end of each group of aerials to the two anchor spark gap terminals which are connected to the aerial switch (No. 106).

109. If the instruction governing the use of the carborundum receiver are now followed the installation will be in complete working order both as to the transmission and reception of messages.

110. Other types of detectors will no doubt be adopted. The forms of connections may from time to time be changed. Special instructions will be given to govern such changes.

111. It is frequently observed that the chains making contact with the inside coating of the leyden jars become encrusted with a white deposit; this should be removed by washing chains in hot soap suds, or the following solution:

Make saturated solution of water, oxalic acid crystals (proportion 1 to 25 or 30), and immerse chains for few minutes, then dry.

United Wireless Telegraph Company
C. C. Wilson, President

New York, December 26th, 1908