



WIRELESS TELEGRAPHY ACTS, 1904-1926

LICENCE TO ESTABLISH WIRELESS TELEGRAPH STATION FOR EXPERIMENTS IN WIRELESS TELEGRAPHY

Mr. Cyril Thomas Fairchild, of 1a, Dover Road, Brighton, 6, Sussex, hereinafter called "the Licensee" is hereby authorized to establish a wireless telegraph sending and receiving station for experimental purposes at the above address.

subject to the conditions overleaf and to the payment of a fee of 30s. on the grant hereof (the receipt of which the Postmaster General hereby acknowledges) and a fee of £1. on the anniversary of the date hereof in each year.

This licence is subject to withdrawal or modification at any time, either by specific notice in writing sent to the Licensee by post at the address shown above, or by means of a general notice in the London Gazette addressed to all holders of licences for experimental wireless telegraph transmitting stations.

Failure to send the call signal or to tune accurately to authorized frequencies, the use of unauthorized power or frequencies, or any other breach of the conditions or non-payment of fees will render it necessary for this licence to be cancelled. In event of cancellation no part of any fee paid in respect of the current year will be returned.

This licence replaces that dated the 24th January 1938 which, with the call sign which is hereby withdrawn and should be returned to the address given below. 2DGR

Issued on behalf of the Postmaster General { James 8 December, 1938

All communications should be addressed to The Engineer-in-Chief, Radio Branch, General Post Office, London, E.C.1, quoting Reference W2./A. 5615

N.B.—Any change of address should be notified immediately

E-in-C 429 (Prior authority must be obtained before the apparatus is removed or installed at a new address)

CONDITIONS

1. **Radiotelegraph Conventions.**—The Licensee shall observe the provisions of the International Telecommunication Convention 1932 and the Radiocommunication Regulations annexed thereto or those of any subsequent International Convention and Regulations which may replace them so far as they are applicable to experimental stations.

2. **Power and Frequencies.**—Messages shall be sent only on waves within the frequencies and by the systems specified hereunder and the power used with the sending apparatus (measured at the anode of the valve delivering power to the aerial circuit) shall not exceed that shown against the respective frequencies :—

Power (in watts).	Frequencies (in Kilocycles per second).	Approximate equivalent wavelengths (in metres).	System.
10 (ten)	{ 1720 to 1995 { 7005 to 7295 { 14005 to 14395 *	174.4 to 150.4 42.83 to 41.12 21.43 to 20.83	} Continuous wave and telephony.

* Experiments may also be carried out in the bands of frequencies 28010 to 29990 and 56020 to 59980 Kc/s under non-radiating conditions only.

The use of "spark" sending apparatus and of unrectified or inadequately smoothed alternating current is specifically forbidden.

3. **Frequency control.**—The stations shall always be equipped for the reception of continuous wave telegraphy and telephony transmissions. The sending apparatus shall invariably be tuned to the authorized frequency on which it is proposed to send. This frequency shall be selected inside the above figures in order to ensure that the frequency shall not vary outside the limits of these bands due to crystal variation and transmitter instability. Where the transmitter is not crystal controlled there shall be kept at the station, and used whenever necessary (and on all occasions when the frequency used for sending is changed), a reliable instrument of the piezo-electric crystal type, or other type approved by the Postmaster General, for measuring the frequencies of the emissions from the station. The crystal shall be calibrated to an accuracy of not less than $\pm 0.1\%$. Where the transmitter is crystal controlled the use of a crystal wavemeter will not be compulsory, but a reasonably reliable wavemeter must be provided in order to verify that the transmitter is not oscillating on any frequency other than that on which it is proposed to send.

4. **Operator.**—The apparatus must in all cases be operated by.....the Licensee.....

5. **Sending periods.**—The stations may be operated at any time, provided that the time occupied in sending shall not exceed four hours during any consecutive period of twenty-four hours.

Sending shall not commence without listening-in on the frequency which is to be used in order to ascertain whether interference is likely to be caused thereby with any other station which may be working. No period of sending shall exceed ten consecutive minutes' duration and each period of sending shall be followed by a period of not less than three minutes' listening-in on the frequency used.

Sending shall at once be discontinued or postponed at the request of any Government or commercial station.

6. **Log.**—A running record shall be kept in a book of approved type (not loose-leaf) of all transmissions showing the date and time of each transmission and the frequency and system employed, as authorized in Condition 2. No gaps shall be left between entries in the log book. The record of transmission shall in all cases be initialled by the authorized operator where the licensee is not empowered to operate the transmitter.

7. **Secrecy of Correspondence.**—If any message which the Licensee is not entitled to receive is unintentionally received the Licensee shall not make known or allow to be made known its contents its origin or destination its existence or the fact of its receipt to any person (other than a duly authorized officer of His Majesty's Government or a competent legal tribunal) and shall not reproduce in writing copy or make any use of such message or allow the same to be reproduced in writing copied or made use of.

8. **Messages.**—The only stations with which messages may be exchanged shall be stations (whether in this country or abroad) of persons co-operating with the Licensee in his experiments and, for receiving purposes only, duly authorized Broadcasting Stations. (See also Note ii.)

Messages sent and received by means of the stations shall relate solely to the Licensee's experiments or to his personal (other than business) affairs or those of the person with whom he is communicating and shall be in plain language or if received from a duly authorized broadcasting station shall have been sent for general information. The use of the station for advertising or business purposes, for the sending of news or the messages of third parties or for the reception of broadcast programmes for entertainment or the receipt of any payment for the use of the station is, without prejudice to the generality of this provision, expressly forbidden. Special gramophone records for reproducing modulations of definite tones may be used, but not more than one ordinary gramophone record during the course of a day, with the exception that the same record may be repeated.

9. **Propaganda.**—The station shall not be used for social or political propaganda or for the purposes of any social or political organization and no such organization shall be allowed to control the station or the use made of it by the Licensee or in any way to take part in the experiments conducted by means of the station.

10. **Call signal.**—The call signal G 3YY (g three y y) has been allotted to the station. The prefix of nationality, *i.e.*, "G" must invariably be included in the call signal which may be sent either by Morse telegraphy at a speed not greater than 20 words per minute or telephonically. In calling up another station the signals of the called and calling stations should be sent not more than three times each. In answering a call the signal of the calling station should be sent not more than three times and the call signal of the answering station once. The call signal of the station sending should also be sent at the beginning and end of each subsequent period of sending and on every occasion when the wavelength is changed. Full details of the procedure to be observed are contained in Sections V and VI of the Postmaster General's Handbook for Wireless Operators.

The use of the general call "CQ" is expressly forbidden. The word "test" followed by the call signal of the Licensee's station, may, however, be sent out when

essential for the Licensee's experiments, but this method of calling must not be continued in any case where a reply is not received from another experimental station within a reasonable time.

11. Inspection.—The station shall be subject to the approval of the Postmaster General, and together with the record of transmissions and this licence shall be open to inspection at all reasonable times by duly authorized officers of the Post Office, who will produce their cards of identity on request.

12. Non-interference.—The station shall be used in such a manner as to cause no interference with other stations.

The arrangement employed for "keying" the transmitter must be such as to ensure that the risk of interference due to key click being produced in neighbouring apparatus has been reduced to a minimum.

13. Aerial.—The length of the effective portion of the aerial and down lead shall not exceed 150 feet. If the station is situated within half a mile of the boundary of any aerodrome, the height of the aerial above the ground level shall not exceed 50 feet. An aerial which crosses above or is liable to fall upon or to be blown on to any overhead power wire (including electric lighting and tramway wires) must be guarded to the reasonable satisfaction of the owner of the power wire concerned.

14. Control in emergency.—(a) If and whenever in the opinion of the Postmaster General an emergency shall have arisen in which it is expedient for the public service that His Majesty's Government shall have control over the sending of messages by means of the station it shall be lawful for the Postmaster General to direct and cause the station to be taken possession of in the name and on behalf of His Majesty and to prevent the Licensee from using it and for these purposes or either of them to cause any part of or all the apparatus forming the station to be removed to such place as he may think fit and any person authorized by the Postmaster General may from time to time enter the premises at which the station is maintained for any such purposes as aforesaid.

(b) The Licensee shall not be entitled to any compensation in respect of the exercise by the Postmaster General of the powers conferred by this condition, which shall remain in force notwithstanding the withdrawal or modification of the licence.

NOTES.—(i) **Use of supply mains.**—*If power for the working of the wireless station is taken from a public electricity supply, whether or not a battery eliminator is used, no direct connexion should be made between the supply mains and the aerial.*

(ii) **Broadcast reception.**—*This licence does not authorize the reception of broadcast programmes except for experimental purposes. For the reception of broadcast programmes for other than experimental purposes a separate licence is necessary and can be obtained—price 10s.—from a local Post Office.*

(iii) **Mobile stations.**—*Mobile stations other than portable experimental stations are forbidden to communicate with experimental stations.*

(iv) **Copyright.**—*This licence does not authorize the Licensee to do any act which is an infringement of any copyright which may exist in the matter transmitted.*

(v) **Return of licence.**—*When this licence is cancelled or superseded by a new licence it must be returned to the address given at the foot of page 1, together with any letters authorizing additions or alterations to the terms of the licence.*

(vi) **Payment of fees.**—*The annual fee should be forwarded on the due date to the Comptroller and Accountant General, General Post Office, London, E.C.1, quoting the reference given at the foot of page 1. It is unnecessary to forward the licence when the renewal fee is remitted.*