

**NORTH EASTERN  
SCHOOL OF  
WIRELESS  
TELEGRAPHY  
BRIDLINGTON**



THE  
North-Eastern School  
of  
Wireless Telegraphy

ESTABLISHED 1911

LICENSED BY H.M. POSTMASTER-GENERAL FOR WIRELESS TELEGRAPHY. RECOGNISED AS A TRAINING CENTRE FOR WIRELESS TELEGRAPH OPERATORS BY THE BRITISH WIRELESS MARINE SERVICE (JOINT SERVICE DEPARTMENT OF MESSRS. THE MARCONI AND RADIO COMMUNICATION COMPANIES), AND THE LARGEST SHIPPING COMPANIES

PRINCIPAL

M. W. G. RUSSELL M.I.R.E.

*(Member of the Institute of Radio Engineers. Awarded the Diploma of the Institute. Awarded Diplomas in Wireless Telegraphy and Electrical Engineering. Holds the Government Certificate in Radio-Telegraphy. Recognised as a Teacher of Wireless Telegraphy and Wireless Telephony by the West Riding Education Authority.)*

HEAD INSTRUCTOR

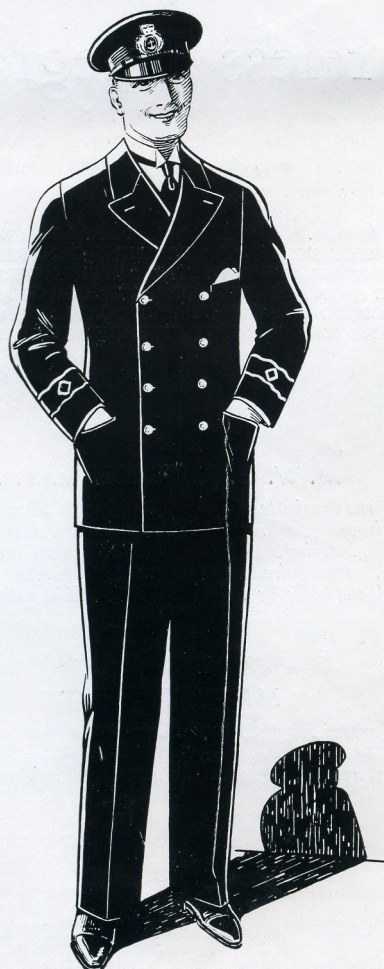
MARTIN HIRST

*(Late of Marconi International Marine Communication Company's Service. Holds H.M. Postmaster-General's First Class Certificate—1927 Radiotelegraph Convention, Radio Engineer and Operator.)*

HEAD OFFICE

RADIO HOUSE BRIDLINGTON

Telephone 2625



*The Wireless Officer*



## Introduction

**E**VEN before a youth leaves school his parents or guardians have to give the question of his future career serious thought. This is especially the case where the boy shows no special aptitude for a particular calling. Most boys when attending school have the ambition to become an Engine Driver, or an Airman, or even an Explorer. As the time approaches when they must leave school, they find that their boyish dreams have vanished, and yet they are at a loss as to what particular line appeals to them most.

Happy is the parent or guardian whose son or ward shows at this time a distinct leaning towards one of the trades or professions.

Even then it may not be possible to accede to the boy's request, for the simple reason that the means may be limited. In deciding the best course for the boy to take, the parent must, if he is thinking of the Engineering trades, take into account the premiums to be paid and the apprenticeship to be served; and, if he is contemplating a professional career, the high cost of the necessary training.

In any case, a number of years must elapse before the boy will be in a position to support himself.

Finally, perhaps not knowing that a Wireless career was open to such a lad, the parent places him in an office. Many of our most brilliant students started life in offices where they had no immediate prospect of advancement, and, consequently, became dissatisfied; they were indeed "square pegs in round holes," and it was surprising to us that their latent engineering talent had never been brought to light.

Wireless as a means of communication has grown rapidly since the war, until to-day, as far as the marine side is concerned, it is the rule rather than the exception for a vessel to be in touch with either land or ship stations, throughout its voyage.

The Wireless Officer of the past was perhaps only heard of when a vessel was in distress and the well-known S-O-S call brought succour. In those days the Wireless installation was fitted on vessels mainly as a means of safeguarding the lives of those on board.

Nowadays one rarely hears of the Wireless Officer in this role, but even so his work has become more and more indispensable. In the first place, the amount of "traffic" (messages of various kinds) increases annually so that the organisations undertaking these commercial stations are world wide.



## The Career

WIRELESS offers innumerable opportunities to the trained Operator and it is difficult to foretell what ultimate positions may be obtained and what remuneration they may carry.

Wireless offers all those attractions for which a young man looks in a profession on which he contemplates embarking.

The pay and prospects are good, there is no worrying apprenticeship, the hours are as a rule regular, and the work, whether on sea or on land, interesting.

Wireless Operators at sea rank as Officers, and as such enjoy many privileges. Good quarters, food, and attendance are provided.

The life at sea is an attractive and varied one. In port there is very little to do, and splendid opportunities are presented for seeing the conditions of life in all parts of the world.

To the youth who wishes to enter the profession we would say, "Start as a Marine Wireless Officer." There is no better means of obtaining a knowledge of the different systems of Wireless or of gaining the essential practical experience. It must be remembered that the Wireless Officer is in complete control of the apparatus, so that it is erroneous to think of him as an ordinary Telegraphist.

To commence with, the first step is to obtain permission to attend a recognised and established School, where he will be certain of obtaining the best possible tuition, and have, at his service, instructors who have trained and placed hundreds of young men in the past.

When the student qualifies he is nominated for appointment with one of the large Wireless Companies, of which the best known are the British Wireless Marine Service and Messrs. Siemens Brothers and Company Limited.

He will, in due course, be appointed, by the Company, to a Wireless Station afloat. As the youth has not had, during his training, the opportunity of dealing extensively with the transmission and receipt of messages, the receipt of Wireless press, etc., he will, in the first instance, be appointed to a large vessel where three qualified men are employed, the ranks being that of Senior, Second, and Junior Wireless Officer. The young man starts as a "Junior" at a salary equivalent to £170 on shore, but after he has served six months with the same Company, he may have the opportunity of being placed in charge of a smaller vessel: incidentally, at the end of this period of service he will have received his first rise in salary. After he has served three years at sea he becomes eligible to take charge of the Wireless Station on a large vessel, and in addition to the salary normally obtained by a third year man, will receive "in charge" allowance. (See "Conditions of Employment"—Salaries.)

The better operators get the better ships with the higher salaries.



As the ability of each man, and the progress he is making, is known to the Company employing him, it is easy to select the best men and appoint them to the shore staff as positions arise.

We would take this opportunity of correcting the idea so prevalent, that only the seniority of the man counts, and therefore, only men who have served eight or more years at sea have any chance of being considered for vacancies on shore. Every man who shows evidence of keenness, operative and technical ability, and carries out his duties in a satisfactory manner, has a chance of promotion to the highly paid positions.

Before he can be appointed to the Shore Examination Staff the Officer must pass the Company's examination, and provided he passes his tests, his position will then be that of Shore Inspector. The salaries obtained by men in such positions being approximately £400 per annum.

The ambitious man will not rest content after he has secured this promotion, as such positions as Depot Manager or Superintendent will now be open to him with a salary of not less than £1,000 a year. All the higher positions in the Wireless Companies are held by men who themselves started life as Wireless Officers.

#### SHORE APPOINTMENTS

We have, we trust, shown clearly above the avenues of promotion for the youth who remains in the "operating" side of Wireless.

As the Regulations governing the Government Examinations for the year 1929 and onwards require that the student, in addition to having a knowledge of all systems of Wireless Telegraphy, shall have a knowledge of Wireless Telephony, new avenues of employment are open to the qualified man.

The Companies engaged in the manufacture of Wireless components, the assembling of Wireless Receivers, or of Wireless apparatus of any kind, and the selling of such apparatus, require men for their "Technical" staffs who have a sound knowledge of Wireless Telephony.

Positions such as "Junior Technical Laboratory Assistants," "Junior and Senior Service men," and "Wireless Sales Engineers," etc., are open to the student who has completed the course covered by the syllabus, and who has in addition a knowledge of the testing of valves, the testing of Wireless receiver components, and the servicing of Broadcast receivers. We are also in touch with Wireless Relay Service Companies who require qualified men for their Technical Staffs.

Training in the testing and servicing of receivers can now be included in the course, if desired.

The School is equipped with the latest type of valve and receiver testing apparatus.

Students who qualify and obtain the Postmaster-General's First Class Certificate, and who have completed a course on the testing and servicing of receivers can accept a position either on land or on sea.



## Advantages of training in a healthy sea-side town like Bridlington

ON the official Coat of Arms of the Borough of Bridlington appear the letters B.B.B. What the correct meaning of these letters is the present writer does not know. What he does know, however, is that for many years past they have usually been interpreted as meaning Bright, Breezy, Bracing. It would be difficult to find three other adjectives which could more accurately describe this wonderful resort. Bright it most certainly is in every sense of the word. Its sunshine record is one that may be envied. Even in 1929, that year of sunshine records, Bridlington came out with nearly 1,300 hours in the period March to September, which is an average of just over 6 hours per day. In the same period the rainfall was only a shade over an average of 1 inch per month.

Breezy is Bridlington in that delightful and healthy way beloved by all of us. Sufficient breeze to temper the hot rays of the sun, and yet not be uncomfortable, and sufficient too for the enthusiastic yachtsman, of which the town attracts a good many.

Bracing it is, not merely because it is situated on the North-East Coast, but perhaps also because of its wonderful expanse of sands on each side of the town, washed clean by every tide.

Bridlington is situated in a bay which is bounded on the north by Flamborough Head and on the south by Spurn Point. It is one of the most sheltered bays on the English coast. When gales rage out at sea, it is a most interesting sight to see the bay full of ships of all descriptions and nationalities waiting at anchor until the storms abate. It is this fact of being so sheltered that gives charm to the boating at Bridlington. The veriest novice is allowed to take out a small rowing boat entirely "on his own." These small boats are quite a feature, being extremely light and dainty in construction, and appear to be more suited for a river than the open sea. The town has long been known for its excellent boating and fishing, and to yachtsman in particular, as the home of an Annual Regatta.

For those who like bathing, there are excellent facilities and complete safety. There are no pools or undercurrents, and one may go quite a long way out before reaching anything like deep water.

Although Bridlington cannot be said to be situated in very beautiful country, it is within easy reach of many interesting places. The Priory Church situated in the old town is well worth a visit, and the Bayle Gate should not be overlooked. Then there are delightful walks up on the cliffs. On the north side there is Danes Dyke, concerning which there are many stories, one of the most interesting connecting it with smugglers. Between Danes Dyke and Bridlington is Sewerby, a little village with rather departed glories. In the old days a visit to Bridlington was not considered complete unless one went on a donkey to Sewerby and back, and so popular were these donkey rides that many a time one party would consist of 50 or more. Beyond Danes Dyke is Flamborough Head, whose lighthouse sends out its flashing gleams for the benefit and protection of seafarers of all nations. These flashes, which are in



series of four, can be seen for a very long way, and are clearly visible at Bridlington, of course, although the distance from the North Pier to the Head is said to be seven miles. Flamborough Head is a Lloyds signalling station, and a very interesting half-day can be spent watching the messages being received and answered by means of flags. Close to the Head is the village of Flamborough, which is about four miles from Bridlington, but the principal interest is at the North Landing, the name given to a natural little bay, apparently cut out of solid rock. Here are coves innumerable, the most famous being the Smugglers' and Robin Lythe's Caves. The latter is the largest and concerning it are many stories. There is a ledge on which Robin Lythe is said to have hidden from Excise men. This story is mentioned in Blackmore's "Mary Anerley," so that mayhap it has the merit of being true. To see many of the caves it is necessary to take a boat, but there is no lack of fishermen waiting to render this service and act as guide generally. There is also a South Landing, but this is not nearly so interesting. It is picturesque, but acts mainly as a harbour and shelter for a few fishing boats. Flamborough is famous for its crabs.

Further north along the coast line are Bempton and Speeton, whose cliffs are very high (nearly 400 feet), and from which wonderful views may be obtained. Here on the face of the cliffs great quantities of sea birds make their home. In the early summer months the district is worth a visit for the purpose of seeing the cliff climbers at work gathering eggs. Men are lowered over the edge of the cliffs by ropes, which are run over a wheel at the cliff top. Considerable skill is required to make the descent and ascent without injury to one's person or damage to the eggs. The men sit in a kind of cradle and wear special boots with strong spikes in them. These enable the men to "walk" up the cliff face.

Further north still is the pretty little village of Reighton, while slightly more inland is Hunmanby, and yet a little further on is Filey, famous for its Brigg. Reighton Church is rather quaint and interesting by reason of the fact that it is built from stones from the beach.

On the south side, the nearest place on the coast is Barmston about seven miles away, but inland there are the pretty villages of Carnaby and Burton Agnes, being about  $2\frac{1}{2}$  miles and  $5\frac{1}{2}$  miles respectively from Bridlington. About six miles away is Rudston, where there is a famous monolith, concerning which there are many stories.

Further away still are Hornsea on the south, and Scarborough on the north, whilst inland there are such places as Sledmere, famous as the home of the late Sir Tatton Sykes, and Driffield, an important agricultural centre.

But it is unnecessary to enumerate all the many places of interest in the vicinity of this noted pleasure resort. More important for our purpose is the fact that Bridlington provides in its bracing air and its numerous opportunities for healthful relaxation the essential conditions of physical fitness, mental alertness, and successful study.

Obviously, therefore, Bridlington is an ideal place for a wireless school. Being on the coast it offers greater facilities for practical training than an inland town can possess. At Bridlington ships' messages are easily intercepted, whilst no further away than Scarborough is an Admiralty Wireless Station.



# General Information

THE North Eastern School of Wireless Telegraphy was one of the first to prepare Operators for the Merchant Service, and its success is due to the personal attention and satisfaction given to students.

Many of our students have qualified for, and have obtained, higher positions after a year or two of service and are highly thought of by the Wireless Companies by whom they are employed.

## REFERENCES

Inquiries with reference to the status of the School as a Training Centre for the Wireless Service, may be directed to the Manager, the British Wireless Marine Service.

## THE PRINCIPAL

The School is under the personal supervision of Mr. M. W. G. Russell, who is well known to the Managers of the Wireless Companies, and several of the largest Shipping Companies. The large number of testimonials received by him (of which a few are included in this Prospectus) amply testify to his ability in training young men for the Wireless Service and Trade.

All Instructors are approved by H.M. Postmaster-General and are specialists in the branch of work which they teach.

## SITUATION

The School is ideally situated, being close to the Promenade and Sands; views of Bridlington Bay being obtainable from all rooms.

The back of the School faces the Victoria Terrace Gardens. The Classrooms being large and airy, our students work under ideal conditions.

Buses from all parts of Yorkshire disembark passengers at the end of York Road.

The School is residential, with ample facilities for both study and recreation in the evenings.

## BOARD- RESIDENCE

The charge for board-residence is 18 guineas per Term, payable in advance. Boarders should come provided with slippers for indoor wear, a travelling rug, and the necessary toilet requisites. It is usual (but not compulsory) for students, who intend to enter the Marine Service, to provide themselves with the School uniform, which is very similar to that worn by Wireless Officers in the Mercantile Marine. The uniform can be supplied, at specially low rates, by the School Tailor in Leeds.

## UNIFORM

Students will be measured and fitted on in Bridlington.

When the student qualifies, the Tailor will alter the uniform, so as to conform to the Mercantile Marine regulations, without any further charge beyond that required to cover the cost of the necessary braid (rank stripes), buttons, and cap badge.



TESTIMONIALS	The originals of the testimonials published can be seen at any time at the School Office.
FORMS OF ENROLMENT	<p>Every student who desires to undergo training at this School must be British born of natural born British subjects.</p> <p>The intending student must, therefore—</p> <ol style="list-style-type: none"> <li>(1) Complete and hand to the Principal of the School— <ol style="list-style-type: none"> <li>(a) A Post Office—Birth and Parentage Form (these forms can be supplied on request).</li> <li>(b) References from two people who are British subjects and householders, but <i>not</i> related to the applicant (forms for this purpose can also be supplied).</li> </ol> </li> <li>(2) Furnish a certificate of birth.</li> </ol>
AGE	Prospective students should be between the ages of 15 and 26. Students over 26 are not barred from obtaining employment with the Wireless Companies, but will naturally require a slightly longer training period.
PHYSICAL FITNESS	<p>Every student who intends to enter the Marine Service must undergo a medical examination by a doctor appointed by the Company he desires to join.</p> <p>His lungs and heart must be sound, and his hearing good. When, therefore, any doubt exists as to the physical fitness of the young man, his family doctor should be consulted before he joins the School.</p>
QUALIFICATIONS	<p>A student joining this School need have no special Chemical or Mathematical knowledge, although naturally one with such will be able to assimilate the knowledge quicker.</p> <p>In every case the student will start the course from the commencement.</p>

## The Training

THE instruction given covers the training necessary to enable the student to sit for the Government Examination for the Postmaster-General's Certificates of Proficiency in Radio-telegraphy, First and Second Class and, in addition, a more comprehensive study of Radio Valves and Valve Apparatus in application to "Short-wave" Transmission and Reception, Television, etc.

Lectures are given daily on the subjects mentioned in the syllabus, including demonstrations, when necessary, with actual ship's apparatus.

Since the Wireless Officer will, sooner or later, have to take charge of the installations on board ship, and the apparatus is often expensive, especially on the large vessels, it is essential that the student thoroughly understands the construction and working of each component part, and realises his responsibility in the matter.



There is no doubt that Operators trained at this School have a knowledge of their work above the ordinary, and we are constantly receiving letters from old students in which they emphasise this.

For example, one of our students writing to us states—  
“I have been placed ‘in charge’ of the S.S. ————— after having served only five months with the Company.”

As we have already stated in the introduction to this Prospectus, in the ordinary course of events, Operators are required to serve at least six months as Juniors, before they are given control of Wireless stations by themselves.

#### DISCIPLINE

As a high standard of discipline must necessarily obtain on board ship, it is essential that a similar standard should be maintained in training.

Students in residence here are, therefore, requested to observe all the rules of the School.

Every student absenting himself from classes or from the Boarding House must give a satisfactory reason for such absence to the Principal, or be reported to his parents or guardians.

No time is wasted at the School in teaching the student matter that is not essential to the requirements of the Government Examinations or to the student's future.

Parents will no doubt, appreciate this fact, as any such extra, but non-essential, training must naturally prolong the time taken by the youth in qualifying.

Our training system has reached such a high standard that the instruction given has enabled students to qualify in as short a period as ten months. At the same time we appreciate the fact that the students who qualified in such short periods gave careful and earnest attention to their work.

#### PERIOD OF TRAINING

We would also point out that, while we estimate that the time taken will cover one year's tuition, as soon as the student has a reasonable chance of success, he will become a candidate for the Government Examination.

## Syllabus

#### ELECTRICITY AND MAGNETISM

Magnetism—Molecular theory; force between poles. Magnetic moment. Terrestrial magnetism, etc.

General electrical principles—Molecules, atoms, ions, electrons. Current, resistance, potential, differences of potential. Static electricity. Discharges—brush and spark.

Atmospheric electricity—Elementary theory of thunder and lightning.

Condensers—Capacity. Calculation of capacity. Construction of condensers. Voltage, quantity, energy-stored, etc. Capacities in series and parallel.



Primary and secondary cells—Simple primary cell, Daniel, Leclanche, dry and inert cells. Polarisation, local action. Internal resistance, etc.

Secondary cells—Construction and action. Care and maintenance. Charging, discharging. Use of voltmeter, hydrometer, and thermometer for testing, etc. Ohm's Law, resistance, current, voltage, direct and alternating currents. Voltmeters and ammeters—construction and action. Transformers, electro-magnets, electro-magnetic induction. Power, work, energy, etc.

#### TECHNICAL WIRELESS

Construction and action of—Motors, dynamos, alternators, converters.

Charging circuit—Construction, function, and action of apparatus usually included. Safety devices. Reactance regulator, etc.

Transformers—Construction and action. Transformation—ratio. Self-regulation, etc.

Resonance of charging circuits—Inductive and capacity reactances. Impedance. Indications of lack of resonance. Natural frequency. Use of iron-core inductance and field regulator in obtaining resonance.

Spark, continuous wave and interrupted continuous wave installations—Principles, apparatus, circuits, adjustments, maintenance.

Emergency installations—Adjustments, circuits, maintenance.

Receiving apparatus—Principles, circuits, adjustments, maintenance.

Ether waves—Transference of energy, wave motion, sound waves, "damped" and "continuous" waves, etc.

Aerials—Types, properties, function of "earth." Insulators, etc.

Radiotelephony, transmitting and receiving apparatus—Principles, circuits, adjustments, maintenance.

The transmission and reception of messages by Telephone.

Direction-finding apparatus—Principles, circuits, adjustments, maintenance.

Auto-alarm devices—Principles, adjustments, maintenance.

*Note*—The complete syllabus of instruction can be seen at any time at the School Office, space does not permit of printing it in detail.

#### TELEGRAPHY

Sending and receiving in the Morse code at speeds of 20–25 words per minute. The beginner will, of course, be first taught the code and then his speed in transmission and reception be increased by practice.



Practice covers, Press, code, and figures.

The advanced students are given practice in receiving actual Morse signals to train the ear to receive through "atmospherics" and "interference."

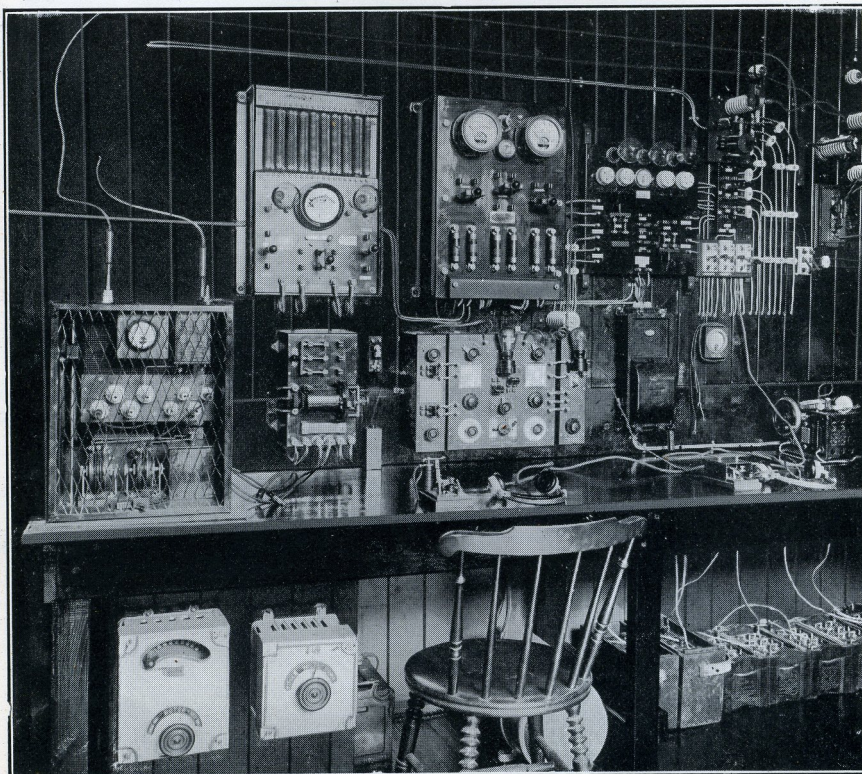
Commercial working—Exchanging traffic as between a ship and other ship stations, and between a ship and shore station. Filling in preambles, routing, and charging for messages. The keeping of a "Wireless Log."

INTER-  
NATIONAL  
REGULATIONS

The use of the "International List of Radiotelegraph Stations," the "International List of Land and Fixed Stations," and the Post Office Guide. The principal wire and wireless routes of the world.

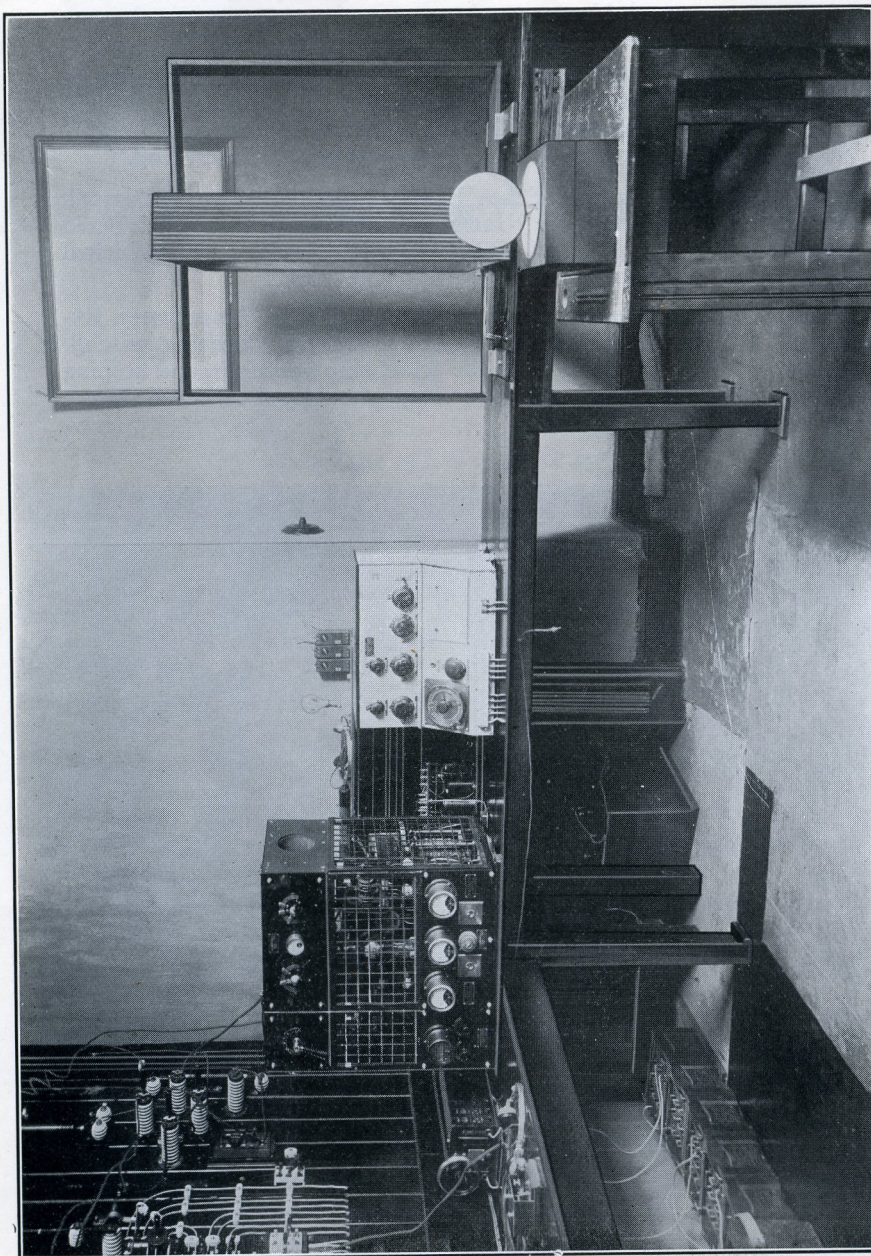
PRACTICAL  
WATCH-  
KEEPING

Students who are candidates for Government Examinations are also given practice in "keeping watch," i.e. listening in on the actual ship's receiver, and keeping a log of all signals received, as required on board ship.



*The Marconi Quenched Gap Spark Ship Installation with Emergency Set, and Marine Receiver No. 4 B. fitted in the Instrument Room.*





*The Marconi C.W. and I.C.W. Valve Transmitter, and the latest Marconi Direction Finding Apparatus fitted in the Instrument Room.*



**PRACTICAL WORK** Connecting up apparatus. Regulating and adjusting apparatus. Tracing and clearing faults. Repairing defective apparatus. Using D.F. apparatus to obtain bearings, etc.

**TEXT BOOKS** The text books required for the course are as follows—  
“Electricity and Magnetism,” Sylvanus Thompson. Price 5s. 6d.  
“The Admiralty Handbook of Wireless Telegraphy.” Price 7s. 6d.  
H.M. Postmaster-General’s “Handbook for Wireless Telegraph Operators.” Price 6d.

**APPARATUS** The School is equipped with the following apparatus—  
The Marconi Quenched Gap Spark Transmitter, complete with emergency apparatus, switchboards, etc.

This set includes—Inductor-alternator; transformer; D.C. and A.C. switchboard; low frequency inductance; condenser; oscillation transformer; aerial tuning inductances; key, type III, with “send-receive” switch; emergency unit type 196; quenched spark gaps; charging panel; 24-volt emergency battery, etc.

The Marconi Continuous and Interrupted Continuous Wave Valve Transmitter.

This set includes—Complete I.C.W. unit; complete rectifier panel and power regulator; filament compensator; one oscillator and one rectifier valve; condensers; inductances, etc.

This installation is one of the new type as required by the Radiotelegraph Convention 1927.

The Marconi Direction Finding Apparatus complete.

This includes—The most up-to-date Marconi direction finder, including amplifier. The amplifier employs two Marconi “screened-grid” valves, a detector and low frequency valve. Radiogoniometer; earthing relay; calibrating chokes, etc.

The Marconi Directional Buzzer Transmitter, including inductance, condenser, buzzer, cells, etc.

The Marconi 2-Valve Marine Receiver.

This includes—Long wave panel; detector panel; low frequency panel; two 6-volt accumulator batteries; three 24-volt high tension accumulator batteries; charging board; control panel; distribution board, etc.

In addition to the above apparatus, the School Lecture Room is equipped with condensers, transformers, electric motors, rotary converter, inductances, etc., in fact every possible type of instrument required for demonstration and practice.



#### SCHOOL

EXAMINATIONS every month. These examinations are conducted on lines similar to that obtainable at the Government Examinations. This gives Instructors and students a correct estimate of the chances of success.

As the number of students in our classes is kept reasonably small, we are enabled to give our "advanced" students an individual oral examination. All backward students are coached individually. A report of the student's work at the monthly examination will be sent to his parents or guardians upon request.

#### GOVERNMENT

EXAMINATIONS The School is a Government Examination Centre. Examinations for the Certificates of Proficiency in Radiotelegraphy are conducted at the School by Government Inspectors.

A student if unsuccessful cannot be re-examined until a period of three months has elapsed.

The Government Examination comprises—

A theoretical examination consisting of two papers—

(1) Electricity and Magnetism, for which two hours are allowed.

(2) Technical Wireless, for which three hours are allowed.

These papers will consist of comprehensive questions on the subjects covered by the syllabus.

A practical examination covering—

(a) Connecting-up apparatus.

(b) Regulating and adjusting apparatus.

(c) Tracing and clearing faults.

(d) Repairing defective apparatus.

The apparatus referred to above being Quenched-gap Spark installation; Continuous and Interrupted Continuous Wave Valve installation; and the Receiving apparatus.

(e) Using D.F. apparatus to obtain bearings.

(f) Operating—Sending and receiving the Morse code.

The speed required of a candidate for the First Class certificate being 25 words per minute in plain language and 20 groups per minute in code. For the Second Class certificate, 20 words per minute plain language and 16 groups per minute code.

(g) A test on commercial working, exchanging traffic as between a ship and other ship stations and between a ship and shore station.

Candidates for the Second Class certificate are not required to have a knowledge of Direction Finding or Wireless Telephony.



CAREERS IN  
WIRELESS

The following careers are open to those who qualify as Operators and Engineers.

- (a) Wireless Engineer or Operator—Appointments in this section are usually obtained in either The Royal Air Force or Imperial Airways.
- (b) Wireless Officer—The First Class Certificate issued by H.M. Postmaster-General qualifies the holder to obtain a position on a large passenger liner.
- (c) Engineers in a B.B.C. Station—Applicants for these posts must have a thorough knowledge of Wireless and Electrical Engineering.
- (d) Engineers in Wireless Relay Service Stations—Students holding the Postmaster-General's First Class Certificate who are good practical operators are selected for these positions.
- (e) Technical Laboratory Assistants, Junior Service Men, etc.—The above positions in the Wireless Trade are open to all with a good knowledge of Radio Valves, Valve Apparatus, and the testing and servicing of Radio Receivers.

APPOINT-  
MENTS

When a student qualifies and obtains H.M. Postmaster-General's First Class Certificate he will be nominated by the School, if he so desires, for appointment with a Wireless Company or "Direct" with one of the large Shipping Companies, but students can only be nominated by the School provided their conduct and attendance at the School have been satisfactory, and in such cases a testimonial will be given to the student (a testimonial being required by any Company to whom the student may be nominated for appointment).

After nomination the student will, as soon as the Company have a suitable vacancy, receive instructions to report to that Company's Medical Officer for medical examination. The expenses of this examination are borne by that Company.

The Companies employing Wireless Officers on their sea-going operating staffs are—

The British Wireless Marine Service (Joint Service Department of Messrs. The Marconi International Marine Communication Company and Messrs. Radio Communication Company), and also such Shipping Companies as the Cunard Steamship Company, the Anchor-Brocklebank Line, the Blue Funnel Line, the Union Castle Line, etc., who employ their own wireless staffs.



Students desirous of obtaining shore appointments may be placed with the Royal Air Force, Imperial Airways, Royal Corps of Signals, Wireless Relay Service Companies, or in the Wireless Trade, as openings arise.

#### SCHOOL HOURS

Monday-Friday—9.30 a.m. to 12.30 p.m.  
2.0 p.m. to 4.30 p.m.

In special circumstances, classes for preparation for Government Examinations, etc., the “advanced” students may be detained until 5.0 p.m.

#### VACATIONS

The School closes for four weeks during the month of August; one week at Christmas; ten days at Easter; and one week at Whitsuntide.

#### INTERVIEWS

The Principal will be pleased to interview parents or prospective students by appointment.

Office hours: Monday—Friday ... 9.30 a.m.—12 noon  
2.0 p.m.—5.0 p.m.

Saturday ... 10.0 a.m.—12 noon

#### FEES

For training for the Postmaster-General’s First Class Certificate of Proficiency in Radio-telegraphy—

Fee for one year’s tuition (45 weeks) £35 0 0

If paid per period of 13 weeks £10 per period  
exclusive of holidays.

Fee per half “period” (six weeks) ... £5 0 0

Fee per month ... £3 5 0

Except where the fee is paid for one year’s tuition a total fee of £5 extra is charged for instruction in Direction Finding.

For training for the Postmaster-General’s Second Class Certificate of Proficiency in Radio-telegraphy—

Fee for ten months tuition (37 weeks) £25 0 0

If paid per “period” of 13 weeks ... £10 0 0  
exclusive of holidays.

Fee per half “period” (six weeks) ... £5 0 0

Fee per month ... £3 5 0

All fees whether paid per year, per “period,” per “half period,” or per month, are *payable in advance* and *not returnable*.

No reduction is made, except in the case where the fee has been paid for one year’s tuition, First or Second Class Courses, when 5 per cent. discount is allowed.

Cheques should be made payable to—“The North Eastern School of Wireless Telegraphy,” and crossed.



## DEFERRED PAYMENT OF TUITION FEES

### FIRST CLASS CERTIFICATE COURSE

A fee of £10 on enrolment and the balance of £28 payable in instalments on qualifying ... .. £38 0 0

### SECOND CLASS CERTIFICATE COURSE

A fee of £10 on enrolment and the balance of £18 payable in instalments on qualifying ... .. £28 0 0

Time allowed for First Class Certificate Course 45 weeks from date of joining.

Time allowed for Second Class Certificate Course 37 weeks from date of joining.

## List of Successes and Particulars of Recent Appointments

<i>Name</i>	<i>Birthplace</i>	<i>Company appointed to</i>
G. P. Drake	... Sheffield ...	... Blue Funnel Line
G. B. Hewetson	... Hessle, Yorks. ...	... Do.
A. Ikin	... Leeds ...	... Marconi International Marine Communication Company
F. E. Smith	... Grimsby ...	... Do.
G. Barks	... Aberford, Yorks. ...	... Do.
A. P. Angell	... York ...	... Do.
J. R. Dawson	... Beverley, Yorks. ...	... Blue Funnel Line
E. Bauer	... Shipley ...	... Marconi International Marine Communication Company
S. Kidson	... Melton Mowbray, Leicestershire ...	... Do.
S. Tennant	... Leeds ...	... Do.
G. L. Wade	... Guiseley, Yorks. ...	... Do.
H. C. Bristow	... Peterborough ...	... Do.
R. C. Tetley	... Leeds ...	... Siemens Brothers & Company Ltd.
J. C. C. Moss	... Kirbymoorside ...	... Marconi International Marine Communication Company Ltd.
D. Levin	... Leeds ...	... Do.
G. T. Greenep	... Leeds ...	... Do.
F. B. Hopkins	... Morley ...	... Do.
W. F. Johnson	... Sherburn-in-Elmet	Blue Funnel Line
J. E. M. Williams	... Leeds ...	... Marconi International Marine Communication Company Ltd.
R. Jackson	... Goole ...	... Do.
H. Lench	... Leeds ...	... Siemens Brothers & Company Ltd.
J. Tomlinson	... Ilkeston, Leics. ...	... Marconi International Marine Communication Company Ltd.
M. D. Tomlinson	... Huddersfield	... Blue Funnel Line



E. Wood ...	... London ...	... Marconi International Marine Communication Company, Ltd.
J. A. Kaye ...	... Bramley ...	Do.
R. H. Neville ...	... Leeds ...	Do.
G. A. Tee ...	... Thirsk ...	Blue Funnel Line
S. Teal ...	... Leeds ...	Radio Communication Company Ltd.
T. G. Twisleton ...	... Guiseley ...	Marconi International Marine Communication Company Ltd.
F. H. Beaumont ...	... Barnsley ...	Do.
H. A. Butler ...	... Wakefield ...	Do.
W. A. Shaw ...	... Low Ackworth, Yorks.	Do.
S. C. Shaw ...	... Shipley ...	Siemens Brothers & Company Ltd.
J. F. Ellis ...	... Leeds ...	Messrs. British Wireless Marine Service (Joint Service Dept. Marconi & Radio Communication Cos.)
D. A. Hewetson ...	... Hull ...	Do.
H. Pickles ...	... Salterforth ...	Do.
S. Yeadon ...	... Leeds ...	Do.
G. B. Clayton ...	... Leeds ...	Do.
N. B. Hare ...	... Accrington, Lancs.	Do.
W. Nevison ...	... West Ardsley ...	Do.
J. C. Rhodes ...	... Leeds ...	Do.
G. D. Stell ...	... Bradford ...	Do.
H. K. Brierley ...	... Chicago, U.S.A. ...	Do.
G. Camn ...	... Leeds ...	Do.
F. A. M. Moss ...	... Ryhope, Durham ...	Do.
F. Winn ...	... Yeadon ...	Do.
A. R. Peel ...	... Birkinshaw ...	Do.
G. W. Smith ...	... Northallerton ...	Technical Assistant, Wireless Firm
C. Tinker ...	... Huddersfield ...	Messrs. British Wireless Marine Service
L. M. Wishart ...	... Selby ...	Do.
J. E. F. B. Farrington ...	... Dunmurray, Co. Antrim ...	Do.
J. Carr ...	... Skipton, Yorks. ...	Do.
R. Carter ...	... Leeds ...	Do.
R. W. Clegg ...	... Leeds ...	Do.
H. E. Dowey ...	... Leeds ...	Do.
E. P. R. Horner ...	... Farnhill ...	Cunard Steam Ship Co.
C. Jackson ...	... Goole ...	Messrs. British Wireless Marine Service
J. Macintosh ...	... York ...	Do.
R. Watson ...	... Scarborough ...	Do.
D. C. Bowman ...	... Alfreton, Derbyshire ...	Do.
M. H. Duke ...	... York ...	Do.
J. H. Farrar ...	... Halifax ...	Do.
A. Giggall ...	... Ossett ...	Do.
F. B. Hopkins ...	... Morley ...	Do.
K. G. Stacey ...	... Leeds ...	Do.
F. Weale ...	... Pontefract ...	Do.
R. A. G. Mead ...	... Sutton, near Hull ...	Small Craft—B.W.M.S.
G. G. Bentley ...	... Bristol ...	Siemens Brothers & Company Ltd.
R. C. Tetley ...	... Leeds ...	Do. (reappointed after obtaining new First Class Certificate)
F. Mitchell ...	... Skipton ...	Messrs. British Wireless Marine Service
L. S. Gossop ...	... Cleethorpes ...	Do.



A. G. S. Hopkins ...	Morley ...	Scandinavian Shipping Bureau
T. J. Armitage ...	Harrogate ...	Messrs. British Wireless Marine Service
J. K. Chambers ...	Farsley ...	Do.
G. B. Clayton ...	Leeds ...	Do. (reappointed)
H. Preston ...	Dewsbury ...	Do.
K. N. Craven ...	Brentford, Middlesex	The Gramophone Co. (H.M.V.)
D. M. Gill ...	Doncaster ...	Messrs. British Wireless Marine Service
T. Patten ...	Doddington, Northumberland	N.E. School Staff
G. B. Shaw ...	Pudsey, Yorkshire...	Shore Appointment
F. B. Hollis ...	Darlington, Co. Durham ...	Messrs. British Wireless Marine Service
N. Pickard ...	Thirsk, Yorkshire ...	Do.
J. E. Snarr ...	Tadcaster, Yorks. ...	York Relay Service
A. H. H. Tidbury ...	Aldershot, Hants. ...	Messrs. British Wireless Marine Service
S. Wilkinson ...	Withernsea ...	Do.
L. R. Fotherby ...	Wakefield ...	York Relay Service
J. E. Anderson ...	Blidworth, Notts. ...	Messrs. British Wireless Marine Service
R. W. Smith ...	Welton, nr. Lincoln	Do.
E. T. Wilson ...	Aldershot, Hants. ...	Small Craft
G. H. Snell ...	Bridlington ...	Do.
G. Williams ...	Coedpoeth, N. Wales	Messrs. Ashton & Welsh, Fleetwood
D. I. Graham ...	Agra, India ...	Messrs. British Wireless Marine Service

## Conditions of Employment

THE following extracts are taken from the Memorandum of Agreement, entered into with the approval of the Shipping Federation between The Engineering and Allied Employers, London and District Association (on behalf of Messrs. Marconi International Marine Communication Company Limited, Messrs. Siemens Bros. and Company Limited, and Messrs. Radio Communication Company, Limited) hereinafter respectively called the Employer, and The Association of Wireless and Cable Telegraphists.

### I

The Operator before appointment to the staff of an Employer signatory to this agreement shall—

- (a) Possess the necessary certificate of proficiency in radiotelegraphy issued by the Postmaster General (the present requirements being First or Second Class certificate).
- (b) If required, the Operator must pass a Doctor nominated by the Employer (medical examination will be at the Employer's expense and the Doctor's report will be the property of the Employer and will be treated as confidential).
- (c) The Operator shall provide himself, at his own expense with the Mercantile Marine standard uniform for Wireless Operators.
- (d) The Operator shall be deemed to have been selected for engagement on the signing of a receipt (duly witnessed by the Employer) for a copy of these conditions as evidence that the terms thereof have been read and accepted by him, and his engagement with rights under this agreement shall commence from the date that he is first instructed to report and take up duty.



## II

The Operator will be required to serve on any British ship in the Mercantile Marine trading in any part of the world and shall on the Employer's instruction, transfer from one ship to another at any time at home or abroad.

## III

- (a) The Operator shall give his whole time and attention to the proper and faithful discharge of his duties and shall use his best endeavours in all lawful ways to further and promote the interests of the Employer and shall obey and conform with all general orders and service regulations issued by the Employer, and with all instructions and directions given to him by any duly authorised official of the Employer.
- (b) The Wireless Department aboard ship shall be considered as a separate Department and the Operator-in-charge will be held responsible to the Master of the ship for the efficient working of that Department.

## IV—SALARIES

Grade of Operator	Class of Vessel					
	Class I		Class II		Class III	
	£	s. d.	£	s. d.	£	s. d.
Grade I—Operators on vessels with a tonnage of—						
Not exceeding 8,000 tons ... ..	14	8 0	12	12 0	11	14 0
8,001 tons and not exceeding 12,000 tons	15	6 0	13	10 0	12	12 0
12,001 tons and not exceeding 16,000 tons	16	4 0	13	10 0	12	12 0
16,001 tons and over ... ..	17	2 0	13	10 0	12	12 0
(Note—The Operator-in-charge on a Class I Vessel shall be paid £1 per month extra.)						
Grade II—Operators with six months' and less than one year's service ... ..	7	13 0	7	13 0	7	13 0
One year's and less than two years' service	8	11 0	8	11 0	8	11 0
Two years' service and over ... ..	9	9 0	9	9 0	9	9 0
Grade III—Operators ... ..	6	6 0	6	6 0	6	6 0

- (b) The rates set out above are applicable to all Operators on articles when employed on British vessels.
- (c) When not on articles, the rate payable to the Operator shall be the rate of which he was in receipt when last on articles.

Prolonged Service Abroad—Operators whose service abroad (between the dates of their departure from and return to Great Britain and Ireland) exceeds 12 months shall be entitled to additional monthly pay as follows—

For service abroad exceeding—

12 months and not exceeding 18 months ... ..	£1 0 0 per month
18 " " 24 " ... ..	£1 10 0 "
24 " " 30 " ... ..	£2 0 0 "
30 " " 36 " ... ..	£2 10 0 "
36 " " 42 " ... ..	£3 0 0 "

- (f) Tanker Allowance—An Operator, if in service on an Oil Tanker, shall be paid an additional  $7\frac{1}{2}$  per cent. on his monthly rate of wages for the period he is on the articles of such ship.