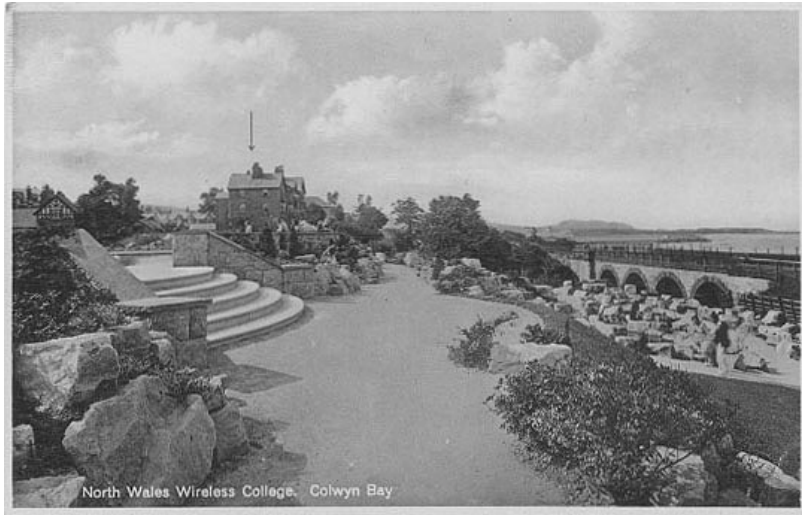


Your future Calling !



THE WIRELESS COLLEGE EAST PARADE COLWYN BAY NORTH WALES

Specialised training for Merchant Navy Radio Officers
and
General training for appointments in every branch of Radio

THE WIRELESS COLLEGE
EAST PARADE, COLWYN BAY, NORTH WALES
Principal : Neville F. Whale

From the earliest stages of its development, the usefulness of Radio as a means of communicating with ships was readily recognised. To begin with few ships were fitted, the whole set-up was purely experimental, and only one "Wireless Operator" was carried to operate the equipment at pre-arranged times. A series of marine disasters, culminating in that of the "Titanic," made it clear that for Radio to be a real "Navigational Aid" and to make a real contribution to the safety of life at sea, all ships must maintain continuous "Radio Watch" all the time that they are at sea. Laws were enacted making it compulsory, first for the bigger ships, and nowadays for practically all ships to carry radio equipment. Furthermore ships must either carry sufficient Radio men to maintain a continuous 24-hour human watch or must carry "Auto-Alarm" apparatus to keep watch between periods of human watch.

From the earliest simple but ponderous single transmitter and single receiver marine radio equipment has advanced and continues to advance. In addition to sophisticated and complicated main and emergency transmitters and receivers, modern ships carry automatic alarms, automatic keying devices, lifeboat equipment's, direction finders, echo-sounders, radar, etc.

At first the Wireless Operator was by some regarded as a passenger making little if any contribution to the efficient running of the ship, but over the years his status has risen and present-day Radio Officers are recognised as being as important as, if not more important than, any other member of the crew. From the legal standpoint the Radio Officer's contribution is to the Safety of Life at Sea, which in an emergency can mean the difference between life and death, but in addition to this he provides contact both between the ship's Captain and the owners, and between the crew or passengers and their families or businesses ashore, and he maintains in tip-top working order numerous Radio Navigational Aids enabling the ship to keep a rigid time schedule in complete safety regardless of weather conditions. Apart from the Radio-communicating equipment and the Radio Navigational aids, the Radio staff may also be in charge of Sound Reproducing equipment, Broadcast Receiving equipment both for sound and television, even sound film projection equipment and closed circuit television.

The development of Radio equipment and the growth in importance of Radio personnel have followed the same pattern in other fields. Modern aircraft carry an enormous amount of sophisticated Radio and Electronic equipment. Up to the mid-1950's aircraft on international flights carried a "Flight Radio Operator" who acted as an intermediary between the Pilot and the ground.

the high speed of modern aircraft allows no time to relay messages in that way and nowadays the radio equipment, which is highly automated, is operated directly by the pilot. Although Radio Operators no longer fly, they are still employed at ground stations communicating with aircraft.

To keep ships at sea and aircraft flying extensive shore and ground staffs are required. After a period at sea Radio Officers can apply for an appointment on the shore staff in either the technical or the administrative departments with the opportunity to rise to managerial level. Aircraft Radio Maintenance is a specialised field requiring specialised training but a general basic training would ensure an advanced entry to the appropriate course.

Radio Operators are employed by numerous government departments, such as the Post Office and The Diplomatic Wireless Service. Radio and Electronic Technicians and Engineers are employed by government departments such as the Post Office, the Home Office and the Board of Trade. Technicians and engineers are, of course, also employed in all sections of the Radio Industry. Furthermore Radio Staff of all types are continuously sought in this country for service in overseas territories.

Clearly there is a vast and ever-expanding range of Radio and Electronic equipment which must be designed, manufactured, tested, installed, operated, maintained and, from time to time, modified. The opportunities in all branches are obvious for there will continue to be a steady demand for personnel in all sections, and a shortage of specialists having the deeper knowledge required for the more responsible positions. Here then is a wonderful chance for young people of either sex, especially those who are mechanically minded, or are interested in Radio or Electronic generally, not only to make their hobby their profession, but also to prepare themselves for a useful and rewarding career with a very definitely assured future.

The Wireless College, Colwyn Bay, has been established as a residential training centre for nearly 50 years. Our primary activity has always been, and still is, the training of Radio Officers for the British Merchant Navy but we also offer a general training for appointments in all branches of radio. During the 1939/45 war we relaxed our original "young men only" rule and trained dozens of young women, in addition to many hundreds of young men for essential war service in the Armed Forces and the Merchant Navy. We have never re-introduced the "young men only" rule and from time to time during the last 20 years we have had small numbers of female students. We originated and have developed the idea of healthily situated and completely self-contained Residential Wireless Training Centres and the fact that students are able to live in a "radio atmosphere" contributes significantly to their progress and our continued success.

RADIO OFFICERS in the BRITISH MERCHANT NAVY or at BRITISH COAST STATIONS are required to hold a certificate of competence issued by H.M. Postmaster-General. P.M.G. Certificates are issued in three grades - SPECIAL CLASS, SECOND CLASS and FIRST CLASS; the minimum training periods (for students following a standard course) being 2 1/2 terms, 3 1/2 terms and 4 1/2 terms respectively.

The SPECIAL CERTIFICATE entitles the holder to operate apparatus in

small ships, such as fishing vessels and private yachts which are not by law compulsorily fitted with radio. Because of its limited usefulness, training for the Special Certificate alone is not recommended. The SECOND CLASS CERTIFICATE entitles the holder to serve as a junior Radio Officer in any British ship and as the Radio Officer-in-charge in some British ships. The FIRST CLASS CERTIFICATE entitles the holder to be the Radio Officer-in-charge of the entire Radio installation and the Chief of the entire Radio staff in any British ship. Various periods of qualifying service for the different categories of ship are required before obtaining a Chief's appointment so all new entrants to the Service start as juniors with the same rates of pay regardless of whether they hold First or Second Class Certificates. A duplicated slip showing the standard rates of pay is enclosed. The employment position varies from time to time but, in general, appointments are readily available as soon as the Second Class Certificate is secured. Nevertheless when circumstances permit it is better to obtain a First Class Certificate before going to sea rather than to go with a Second Class Certificate intending to return for further training at some future date. Some employers insist on, or give preference to, applicants holding more than the legal minimum qualification, and they are prepared to pay above the agreed minimum rates. The P.M.G. Certificates are generally required for operating appointments ashore, with preference being given to holders of the First Class Certificate.

For technical appointments in the CITY AND GUILDS OF LONDON CERTIFICATES in TELECOMMUNICATIONS ENGINEERING have general acceptance. Certificates are issued to candidates passing individual examinations but in addition those candidates who pass a prescribed number of examinations in an approved sequence can apply for a Grouped Certificate which carries much greater weight.

A GROUPED INTERMEDIATE TELECOMMUNICATIONS CERTIFICATE is issued to candidates who have passed in:- Practical Mathematics; Engineering Science; Elementary Telecommunications Practice; Mathematics for Telecommunications "A" ; Telecommunications Principles "A" ; and Radio "A". The last three passes must be obtained in the same year. Candidates already holding G.C.E. "O" Level in Mathematics are exempted from the Practical Mathematics Examination and those already holding G.C.E. "O" Level in Physics, Physics-with-Chemistry, or General Science, are exempted from the Engineering Science examination.

Because good appointments as junior technicians are generally available to holders of the Grouped Intermediate Certificate, it is unusual to proceed beyond that stage by full-time study. The usual procedure is to take an appointment and to study for higher qualifications on a part-time basis either by correspondence or at evening classes. Full-time courses are, however, arranged whenever a number sufficient to form a class require the more advanced training.

A GROUPED TELECOMMUNICATIONS TECHNICIANS' CERTIFICATE is issued to candidates already holding the Intermediate Telecommunications Certificate on passing :- Telecommunications Principles "B" and "C" : Mathematics for Telecommunications "B" and "C" : and Radio "B" and "C". The three "C" level passes must be obtained in the same year.

The CITY AND GUILDS OF LONDON FULL TECHNOLOGICAL CERTIFICATE in TELECOMMUNICATIONS ENGINEERING is issued to candidates, who are over 21 and who have had an adequate experience in a responsible Telecommunications appointment, on passing two SUPPLEMENTARY EXAMINATIONS in a specialist subject.

There is very little difference between the theoretical syllabuses of the P.M.G. First Class Certificate and the C. & G. Intermediate Telecommunication Certificate. The foundational material is the same so it is possible to prepare for both Certificates simultaneously, finishing off with the specialised training for each at the end of the course. Time and other circumstances permitting, those students who do not intend to make the sea a permanent career should complete our Comprehensive Radio Course for the P.M.G. Second Class Certificate, the P.M.G. First Class Certificate and the C. & G. Intermediate Telecommunication Certificate. Provided they keep up their studies whilst they are at sea they remain qualified to make application for a shore appointment whenever they feel inclined to do so. Looking to the future it is fairly certain that in the next decade or two present day Radio Officers, with the emphasis on their communicating roles, will gradually be replaced by Electronics Officers who are Technicians rather than Operators. The precise form which the appropriate examination will then take has not yet been decided but as an interim measure the combination of a P.M.G. First Class Certificate and a C. & G. Intermediate Telecommunication Certificate is regarded by all associated with Marine Radio as becoming increasingly desirable. Even those wishing to make a career of the sea, our Comprehensive Radio Course is to be recommended.

EDUCATIONAL STANDARD. A genuine interest in radio, the desire to succeed, and the willingness to study are essential. Because the absence of these cannot be compensated for by academic qualifications alone, we do not hold formal entrance examinations, nor do we insist on specific academic qualifications before entry. However, a reasonable standard in ordinary arithmetic and a fair command of the English language, indicated by the ability to understand and learn from printed instructional material and the ability to express ideas clearly on paper, are essential. G.C.E., "O" Level, or C.S.E. passes in these subjects, with perhaps Physics or General Science, are ideal, but the lack of such formal qualifications is no barrier. Provided a basic ability and the will to work are present, any slight handicap arising from the lack of a formal basic educational qualification can readily be overcome during the first term or two.

Complex mathematics is not required for the P.M.G. Certificates nor for the lower grade City and Guilds Certificates. Although students must be interested in Radio and Electronics, previous knowledge or experience of the subject is not necessary for our standard courses are designed to suit the requirements of students starting from scratch. Prospective students with previous training and experience, perhaps in the armed forces, should enrol for our Special Classes.

AGE OF ENTRY. Students can commence with us as soon as they have reached the statutory minimum school leaving age but, apart from this

restriction, there is neither a lower nor an upper age limit. However, since an adequate basic education is essential, it is recommended that unless his basic education is already well advanced a student should not leave ordinary school at the earliest opportunity.

TIMES OF ENTRY. We have three terms each year, each term containing twelve weeks uninterrupted instruction. New students are admitted at the beginning of each term; in early January, late April, and mid-September. Late entry, up to two weeks after a term has begun, can be arranged if necessary. It is in order for students with previous training or experience, who are enrolling for Special Classes, to commence their training at any time during a term.

STAFF AND EQUIPMENT. The Founder-Principal was actively associated with the College for over 40 years before which he had considerable experience in the erection, operation and maintenance of some of the world's first large transmitting stations. The present Principal, before assuming that role, had nearly 20 years experience in Radio teaching covering all departments, and maintains a close supervision over all stages and all sections of the training. Our Instructors are experts in their respective departments, each specialising in one section of the course, but all hold the certificates for which they are preparing students and all have had operating or technical experience either at sea or on land or both. They are thus fully conversant with the intricacies of preparing for examination, passing examinations, and doing the job when a Certificate has been secured.

Installed in the College in such a way as to resemble closely a typical Ship's Radio Cabin is the following Marine Radio Equipment specially supplied by Marconi International Marine Co. Ltd. :-

'Oceanspan VII' MAIN Transmitter	'Lifeguard' Automatic Alarm
'Reliance' Emergency Transmitter	'Alert' Emergency Receiver
'Mercury' & 'Electra' Main Receivers	'Lodestone' Direction Finder
'Auto-Key' Automatic Keying Device	'Salvita' Lifeboat Equipment

We also have numerous other items of marine, aircraft and commercial equipment, together with Test Instruments, Signal Generators, Oscilloscopes, etc.

COLWYN BAY is a modern seaside town and its popularity as a health resort throughout all seasons of the year has, in recent years, steadily increased. The College, overlooking the seafront, approximately in the centre of the sweep of the Bay and adjoining Eirias Park, is centrally heated and all rooms are light, sunny, and well ventilated. From the rear the outlook is quite open, giving uninterrupted views of the surrounding country and mountains. There are facilities for all sports and recreations, either in the College itself, or with local clubs in the town who welcome our students, and we have our own theatre, seating about 150. Parents can rest assured that students will not only receive a most thorough training in the shortest possible period under conditions which cannot be surpassed, but will also, whilst in training, be kept familiar with regular habits and upright conduct.

FEES, RESIDENTIAL INSTRUCTION - £84 PER TERM (for dormitory accommodation) payable terminally in advance. The only extras are printed instructional material for the whole course and headphones, costing jointly about £6, this being added to the first term's account. Students under 18 years of age attend as boarders unless they go to their own homes daily, and are always under the jurisdiction of the Instructors. The Instructors maintain an out-of-class rota of duties and are available to help the Boarders at all reasonable times.

We have a limited number of more comfortably furnished small rooms, each accommodating two, three or four students at an extra charge of £6/10/- PER TERM. Subject to availability, single rooms are £9/15/- extra PER TERM.

DAY STUDENTS. Responsible students over 18 years of age capable of managing their own affairs, and those who live near enough to the College to go to their own homes each day, are acceptable as Day Students and are under our jurisdiction during Class Hours only. TRAINING FEE £36 PER TERM payable terminally in advance. We have a list of addresses where accommodation is available in the town at from 90/- weekly.

For periods of attendance shorter than one term, a fee equal to one-tenth of the full term's fee, payable in advance, is charged for each college week - Monday to Saturday - or part thereof, provided that such a period of attendance has been proposed and agreed to in advance. Fees not paid in advance are subject to 10% addition.

Class Hours :-

Mondays, Tuesdays	9.30 a.m. to 12-30 p.m.
Thursdays and Fridays	1-30 p.m. to 5-0 p.m.
Wednesdays	9-30 a.m. to 12-30 p.m.
	1-30 p.m. to 2-30 p.m.
Saturdays	9-30 a.m. to 12-30 p.m.

SPECIAL CLASSES. For prospective students with previous training and experience it is usually possible to arrange a special course which enables them to secure a certificate in the shortest possible period. For this an additional fee of £6/10/- per term, or pro-rata for shorter periods, is charged.

DEFERRED PAYMENT SCHEME. Under this scheme selected students, a limited number at any one time, are permitted to leave their training fees, (not the boarding fees) unpaid until they qualify. The outstanding fees, plus 10%, are then repaid after appointment by monthly allotment from the Radio Officer's salary. Students wishing to train under this scheme must complete one probationary term on a fully paid basis.

CLOTHING AND APPEARANCE. Nothing special nor expensive is required in the way of clothing. Students coming to us straight from ordinary school can continue to use the clothing they already have. All need only bring the articles of clothing one would take anywhere for a three months' stay. The College uniform is optional so the guiding principle can be that if the student has finished growing and is due for a new outfit, then this can conveniently be the uniform. Patterns and prices, with self-measurement forms, are available, post-free and without obligation, from our tailors,

Messrs. Harveys, Leadenhall Street, London E.C.3. When a student qualifies the College uniform needs only new buttons and gold lace to convert it into a Radio Officer's working uniform.

We supply all bed linen so the only items required, in addition to clothing, are towels and toilet requisites. Personal laundry can either be sent home or can be handed to the local laundry man who calls each week, or can be taken by the student to the local launderette.

Students are expected to maintain a standard of dress and personal appearance in keeping with that of ship's junior officers in training.

INTERVIEWS. As the majority of our students come from too far away for them to make a special journey, we do not insist on a personal interview before acceptance and admission, but for those who live within easy travelling distance, or for whom there are any special circumstances best dealt with verbally, a personal interview is recommended. Interviews can be arranged at almost any time on any day, Saturdays and Sundays included especially during term-time, so it is only necessary to write a few days in advance giving the date and approximate time of your proposed visit.

EXAMINATIONS. Three complete Government examinations for the P.M.G. Certificates are held at the College during every year, so that, regardless of his time of entry and his rate of progress, each student can enter for the examination as soon as he is ready. The First and Second Class examinations are in two parts - Part One, Written Theory - Part Two, Morse and practical. A Part One examination is held at the end of each term and a Part Two examination is held half-way through each term. The Part One examination must be passed before Part Two examination can be attempted but a Part One pass is valid for 12 months allowing a maximum of three attempts at Part Two. City and Guilds examinations are held once each year between late April and early June.

APPOINTMENTS. Marine Employers are generally waiting for the results of our examinations so it is not unusual for qualifying students to be in good appointments, in the ocean-going ships of the British Merchant Navy, within two or three weeks of obtaining their Certificates. For shore appointments the demand is less continuous but qualified students have a vast range of employers to whom they can apply for appointments which will make them self-supporting and give excellent opportunities for advancement.

PHYSICAL STANDARD. Merchant Navy Radio Officers are required to be reasonably well developed and to be physically fit. It is impossible to give details here but young men of normal build, who enjoy normal health, and who have had no serious illness which may have left some complications, are almost certain to pass the medical examination necessary before appointment. However, in cases where any doubt exists it is advisable to have the medical examination before commencing the P.M.G. Course here and this can be arranged if required. Colour vision is not tested and spectacles may be worn for the eyesight tests. Vaccination against Smallpox and Yellow Fever will be necessary before going to sea.

NATIONALITY. To be eligible to hold a P.M.G. Certificate and to serve as a Radio Officer in a British Merchant ship, a student must be British born; or of British-born parent's; or a naturalised British Subject; or a naturalised British parent. For this purpose Eire, Commonwealth countries, and countries under British Sovereignty at the time of the student's birth are regarded as British. Non-British students can take the training and sit for the P.M.G. examinations but on passing are issued only with a statement of competence instead of the normal certificate. All prospective students, between being accepted and being admitted, are required to furnish credentials so as to establish their status in this matter.

The College is recognised by the leading Wireless, Radar, Television, Cable and Shipping Companies. Our apparatus is licensed by H.M. Postmaster General, and the College is an official P.M.G. Examination centre.

Your attention is respectively drawn to the enclosed list of successes. These lists indicate the names and home districts of students obtaining the various grades of Certificate in each year. Because of their vast number it is possible to give details of our successes only for very recent years, nevertheless you will undoubtedly find names from your part of the world.

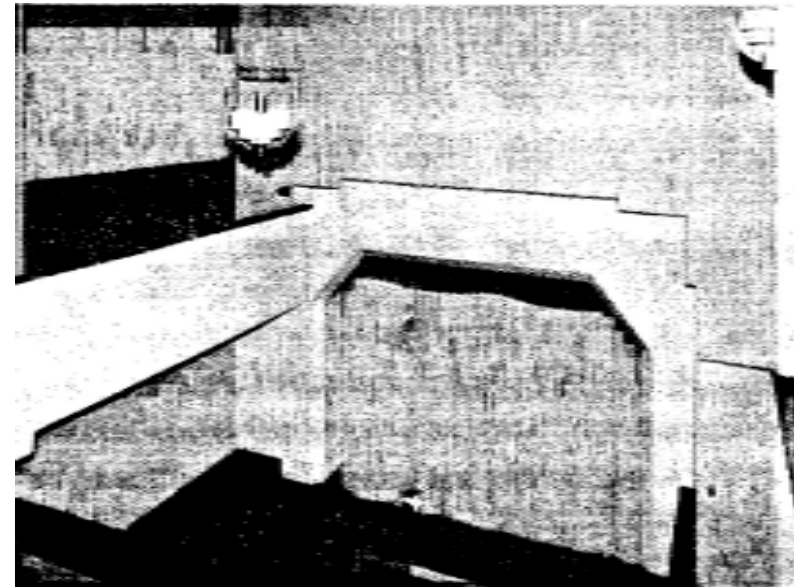
As we invariably have students coming from every part, there is usually no difficulty in arranging for students to travel with others from the same or from adjoining districts, if desired. All inward trains on opening days carry large numbers of our students so that new students, whether or not in uniform, are sure to meet en route.

In this booklet it is impossible to give anything more than broad, general details of our activities. Further information or advice on any one or a number of aspects will gladly be given on request absolutely free of charge and without obligation. Such a request should preferably be accompanied by a completed application form to provide us with the background information we require to give the most helpful answers to your questions.

The submission of a completed application form is the first step towards admission to the College, but entails no obligation. If the applicant is acceptable a place will be offered either for the date of entry requested or for the earliest date thereafter on which places are available. A definite reservation can then be made, if so desired, by forwarding the usual deposit of £5, which is deductable from the first term's fees.

BE TRAINED WHERE SUCCESS IS CERETAIN
BRITAIN'S LEADING WIRELESS TRAINING CENTRE

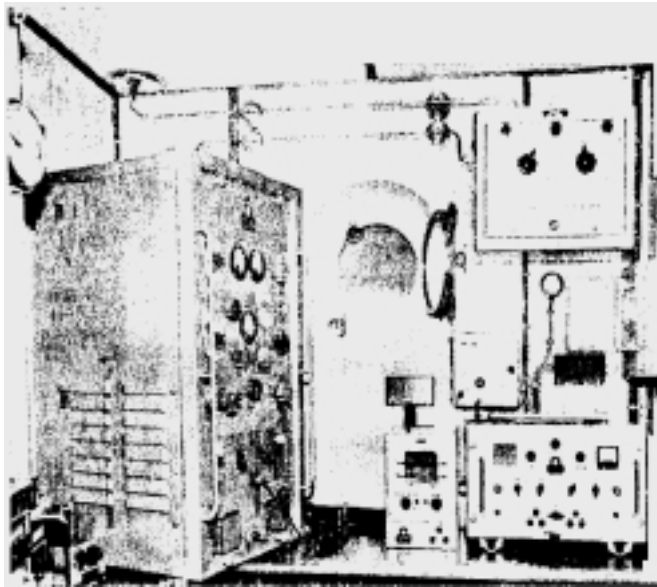
THE WIRELESS COLLEGE
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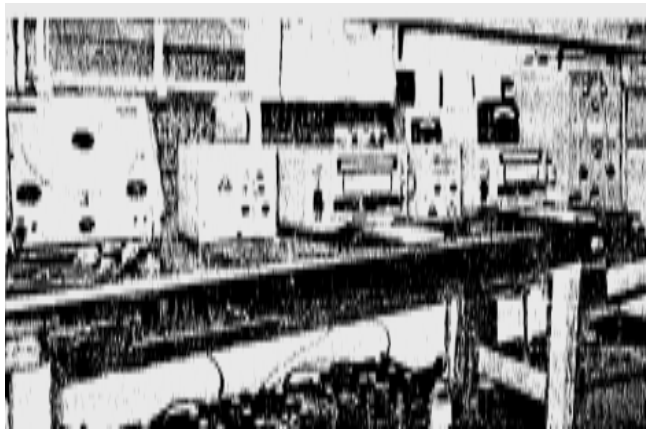
View of Stage in College Theatre (taken from Balcony)



Student taking bearings on College Direction Finder



Marconi Oceanspan VII Transmitter, Lifeguard Automatic Alarm, Alert Emergency Receiver and Aerial Switching Unit as installed In the College.
- Photo by courtesy of Marconi Marine.



"Marconi Loadstone Direction Finder," "Automatic Keying Device," "Alert Emergency Receiver." "Mercury and Electra Receivers," and "Reliance Emergency Transmitter" installed In the College.