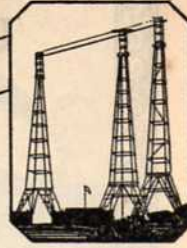


NATIONAL



RADIO



NEWS

FROM N.R.I. TRAINING HEADQUARTERS

Vol. 2—No. 7

WASHINGTON, D. C.

FEBRUARY, 1930

RADIO EARS of UNCLE SAM'S ARMY

See Page 14



TOMORROW—WHAT?



HOW many of us 20 years ago would have dared predict that in 1930 the human voice could encircle the earth without aid of wires? or dreamed of the wizardry of the photo-electric cell? or the controlling of time-pieces by Radio signals? or any of the thousand and one miracles of modern Radio?

And now, what of tomorrow in Radio? We can't close our eyes to its future. How silly we would be to sit supinely by and say that the climax has been reached—that all of Radio's wonders have been achieved.

What Radio will do in the years ahead will so dwarf Radio as we know it today that there will really be no comparison. Today we are barely scratching the surface of this giant, mysterious force. We have unscrambled just a few of its secrets—just enough to peep ahead and see what a vast part it will play in the world in the next ten, twenty or thirty years and on—

Today a master clock in the Channin Building in New York is regulated by Radio signals from Arlington Naval Radio Station—tomorrow the time-piece you carry in your vest pocket may be regulated by Radio. Today a Radio wave carries 200 words per minute—10,000 tomorrow. Today Radio is used to detect approach of enemy aircraft—tomorrow Radio-directed rays may ward off enemy attacks—today Radio a billion dollar industry—tomorrow a giant interlocking world force dominating all commerce and industry!

But why go on? It is common knowledge that the man who is on the Radio "band wagon" today is pioneering in the most dramatic and awe-inspiring pursuit known to man!

J. E. SMITH.

QUIZDEX FOR THIS ISSUE—

- What are the so-called Army "Radio Ears"? See page 14
 What are the duties of Federal Radio Commission? . . . See page 3
 How serious is the shortage of Radio operators? . . . See page 15
 What's so fascinating about short-wave work? See page 6
 Who founded first home-study Alumni Association? . . . See page 5
 How is Wheatstone Bridge used in Inductance measurements? See page 11
 What are some features of Sparton Equasonne 931? See page 7
 Do you have a short-wave transmitter or receiver? . . . See page 6
 Why is the visual Radiobeacon more practical than the aural type? See page 13
 What's the thing to do after mailing in a lesson? . . . See page 15

Radio's governing body. A recent bill signed by President Hoover perpetuates life of Federal Radio Commission indefinitely. Sitting, left to right: Commissioners Saltzman, Sykes, Robinson, chairman; Lafount and Starbuck.



Growth Of Radio In Last Nine Years Is Amazing

By HAROLD A. LAFOUNT

Member Federal Radio Commission

NINE years ago, an amazed world awoke to read that on the night before instrumental and vocal music had been broadcast through a strange electrical apparatus and received many miles away from the sender by persons in various parts of the country. Radio broadcasting was hailed as the miracle of the century—a scientific discovery, infinitely more powerful to the popular imagination than the transmission of the crude wireless telegraphy of Marconi, accomplished in 1896. Since that time, the art has developed with astounding rapidity until today . . . its importance in the industrial world can only be appreciated when we realize that \$650,000,000 worth of receiving sets and accessories were manufactured and sold last year. This does not include the enormous sum which went for transmitting sets, studio equipment and other facilities for production of program. And neither does it include the millions of dollars paid artists and musicians.

Today nearly every family in the United States owns a receiving set. I am told that the investment of the American people in receiving sets, alone, amounts to more than \$3,000,000,000. This certainly indicates interest in radio programs. It is proof positive that radio is an indispensable necessity. Naturally this stupendous investment made must be safeguarded. And so it was with a view to your protection that a sympathetic President, his cabinet and Con-

gress exercised the foresight to pass the Radio Act of 1927. And by so doing, they anticipated the universal use of this new and undeveloped discovery of science. The Federal Radio Commission was by the same act created to regulate and limit the use of radio in the best interest of the American public.

Five Radio Zones Created

Possibly you know the act provided that this country be divided into five radio zones and for the appointment of a commissioner from each—not to represent the zone, but to act with his four associate commissioners as a part of the national commission. The new commission was charged with the responsibility of issuing all licenses for radio transmission. Some months later, the law was amended—providing that the radio facilities of the United States be divided equally among the five zones and equitably among the several States in each zone according to the distribution of the population in the States. By this you can readily see that a sincere effort has been made by the Government to impartially divide the benefits of this great natural resource among all the citizens of the Nation because they share equally in its ownership.

To make and maintain such a division, or such equality, was found to be no easy task. In other words, upon 90 wave lengths available for the purpose we must place the 615 broadcasting stations in such a way as to maintain equality

and reduce interference. This proved to be somewhat of a Chinese puzzle, but after working day and night for several months the commission decided upon a plan of allocating a definite number of cleared, regional and local channels to each zone and to each State based upon its population.

An additional requisite of the law, and a very wise one, is that every station must be operated in the public interest, convenience and necessity. Although a just requirement . . . it is a difficult one for the Government to enforce. It means that the commission must determine which applicant or broadcaster can best serve you. Naturally, all them believe they can or that they actually are rendering the highest possible service, commensurate, of course, with the size of their respective cities.

For Commission to Decide

It is, however, a matter for the commission to decide, and in so doing your interests, your likes and dislikes and your local conditions are all important. Naturally, mistakes are made, it being rather difficult to always anticipate your desires. Likewise there may be violations of the Government's confidence expressed by its granting a radio license, but generally speaking broadcasters are making a sincere effort to comply with all rules and regulations of the commission and to operate in the public interest. Yes, indeed, they sometimes talk too much about the commodities they advertise, but that practice is being discontinued by many stations. Certainly their only available income is from the advertising, but this generally is in the form of a sponsored program, which is not so objectionable to the listeners; in fact, I believe this method of support or maintenance is preferable to the taxing of receiving sets. Under the present method broadcasting in the United States is leading every other nation on earth.

I do not believe we have reached perfection. Many changes will have to be made and some programs improved. I do want to remind you, however, that the programs now being broadcast in this country cost millions of dollars annually. It requires a substantial army of men and women, anticipating your desires and planning programs accordingly. A still larger throng, including many of the world's greatest artists, carry out the carefully planned details in order that you may be entertained and educated. Thousands appear before the microphone each year, all seeking your

approbation. It is inconceivable that we all enjoy the same program, consequently broadcasters are continually striving to diversify them in an effort to please all their listeners some of the time, and perhaps that is all we can expect since our likes and dislikes vary so much.

Uses Are Increasing

The job of the Federal Radio Commission is not confined to broadcasting alone. The many other uses of radio are constantly increasing in importance. Radio has become an effective competitor of the cables. Today we can send radiograms to almost any civilized nation in the world. Soon, it is expected that the leading cities of the country will be served by a national wireless telegraph company. In the Southwest and the Far West the use of radio has been applied to geophysical work and by the sending of radio waves simultaneously with a dynamite blast geologists can determine the presence of oil, thousands of feet below the ground. In our larger cities, radio is used by police and fire departments to guard the public safety. The aviation industry has found radio indispensable to its proper growth and development.

Pilots get their bearings, advance weather forecasts and other valuable information by radio communication. The thousands of ships on the high seas are in constant communication with the mainland. Wireless telephone service is now available on some of the larger vessels making it possible for passengers to telephone from the ship at sea to any city in this and many other countries. Also, the 16,000 amateurs in this country and the thousands of other experimentors are constantly striving to improve the art and to find new uses for it. All these and other uses of radio are restricted to persons or companies operating under Government licenses, which must be issued by the Federal Radio Commission.

Radio Becoming Invaluable

From an economic standpoint, the value of radio for communication purposes cannot be overestimated. Do we really appreciate radio from that standpoint? Have we an adequate conception of its value to the rising generation? Throughout the length and breadth of the land radio is becoming invaluable in the education of boys and girls. In some cities it is even being used to inform grown-ups whose earlier circumstances were without educational opportunities. From the congested slums of our Eastern cities—those centers of mass population—all the way across the continent to the Rockies—radio has become an uplifting and cheering influence to all humanity.

Experiments in television are being conducted now with fair success. It is my belief that the day is imminent when we may witness not only moving pictures, scenes and spectacles, but even football games or a world series. I believe you will be able to follow the progress of a trans-Atlantic flight and I believe also that planes may be flown without a pilot, just as battleships may be controlled by radio signals.

At every hand we have indications that these and other wonderful developments are on the threshold. Such a growing and such a changing scientific art requires the eternal vigilance of your Government, that it may be qualified to allocate these precious wave lengths to the proper service consistent with their characters and public necessity. Unceasing study and research must underlie every decision of the commission. This rapidly growing industry must be maintained in paths of public interest. Your rights as citizens of this great country must be, and I am sure are being, safeguarded and under no circumstances should we permit a subversion of your interests to the profit-taking interests of private or commercial enterprises.

N R I Alumni Association Founded

By HAL JOHNS
News Staff



“. . . To cultivate fraternal relations among the Alumni of the National Radio Institute, to foster the spirit of unity and loyalty to our Alma Mater, to encourage the Institute in its dissemination of Radio knowledge and to promote the welfare of the members by interchange of helpful information.”

—From the Constitution of the N. R. I. Alumni Association.

A NUMBER of N. R. I. graduates met in Washington on November 23 and staged quite a surprise by organizing an Alumni Association. From what I have been able to learn it is the first alumni association of home-study school graduates ever organized!

The graduates present represented 32 States—each a successful Radio man. They talked the matter over among themselves, saw that there were many things that an alumni association could do to promote the well being of fellow graduates, etc., and then went about their business of perfecting an organization which should and will reflect credit on N. R. I. men more and more as the years roll by.

Mr. John Fetzter, pioneer Radio engineer and designer and builder of Station WEMC, Berrien Springs, Michigan, was named President, and the following were named vice presidents: Mr. Harry Barschdorf, 171 N. Summer St., Adams, Mass.; Mr. Alphy Blais, P. O. Box 221, Thetford Mines, P. Q., Canada; Mr. Hoyt Moore, 3301 S. Lyndhurst Drive, R. R. C.

Box 415, Indianapolis, Ind.; and Mr. Donnell O'Connor, Radio Station WBT, Charlotte, N. C. Mr. Earl Merryman, 633 Raleigh Place, S. E., Washington, D. C., was named secretary.

Mr. Fetzter, in speaking of the association, said that details would be completed very shortly for extending the privileges of the Alumni Association to every N. R. I. graduate. The executive committee is now working upon the final draft of the constitution and the by-laws which will be published in succeeding issues of the National Radio News. More detailed plans for membership and for cooperation among N. R. I. men will be given in later issues.

Upon the termination of the meeting at which the Alumni Association was founded, the graduates pulled a big surprise on President Smith by giving him the beautiful loving cup which is shown on this page. All the graduates who were present at the meeting were made charter members of the association and their names have been engraved on the beautiful cup. Again N.R.I. men lead the way.

(Continued on page 14)

