

HEINL RADIO BUSINESS LETTER

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January 23, 1937.

"FAN" MAIL SWAMPS U. S. RADIO EDUCATIONAL OFFICE

"Fan" mail for the five weekly coast-to-coast educational programs is setting new records for responses to that type of broadcasts, according to the U. S. Office of Education, which sponsors the Educational Radio Project.

More than 15,000 letters a week are pouring into the offices of the Federal agency, officials report, and the volume of mail increases weekly.

"The World is Yours", a Sunday morning presentation sponsored jointly by the Office of Education and the Smithsonian Institution over the NBC-Red network, is the most popular of the five programs. But "Answer Me This" is running it a close second in mail response.

The other three programs are "Treasures Next Door", "Education in the News", and "Have You Heard?"

Supplementing the usual "fan letter" method of judging the popularity of "The World Is Yours", the Office of Education has sent out thousands of comprehensive questionnaires to listeners who have sent in fan letters. The questionnaires ask the listener's age, occupation, number listening to the program in his home, if the program is discussed later and comments and criticism about reception and material.

To date, tens of thousands of these reports have been returned. Others are arriving at a rate of more than one thousand per day. Besides showing definitely that "The World Is Yours" is one of radio's top programs in the entertainment field, the questionnaires also attest to its vital educational value, its sponsors assert.

Listeners in all walks of life, of all ages and from every section of the country, as well as from several foreign nations, are returning the reports. It has been found, through an analysis of the questionnaires received thus far, that an average of three persons listen to the programs with each of the answering fans; that the programs are discussed in detail after each broadcast; that advance material, which is sent to more than 52,000 families each week, is used as a supplementary aid during the programs; that this material usually is kept for future reference, and that the programs are fitted to all types of listeners.

The Office of Education plans to make a more complete analysis of the reports when all those sent out have been returned. This will be made with a view to learning the age groups most vitally interested in the program; the sections in which the largest percentage of listeners live; the occupations of those most interested in the broadcasts, and a thorough study of suggestions made in the listeners' criticism.

This final analysis, the Office of Education believes, will give the most detailed check of the listening public ever obtained by the producer of a radio broadcast.

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INFLUENCE OF SUN ON STATIC STILL PUZZLE TO FCC ENGINEERS

The engineers of the Federal Communications Commission are still unable to explain fully the influence of the sun on broadcast reception. And the recent broadcast band hearing, though it offered much technical evidence on many aspects of radio transmission, didn't contribute anything on this major cause of static.

Commr. T.A.M. Craven, Chief Engineer, in his report to the FCC said:

"No new evidence was given with respect to the existing known facts concerning the Heaviside layer and sunspot cycle. It is impossible at this time to give rigid assumptions concerning this subject, because insufficient data have been collected.

"However, the Engineering Department recommends that the Technical Information Section continue to accumulate data from other sources with reference to this subject, and that the Commission encourage research on the part of institutions, leading to the accumulation of greater knowledge concerning the Heaviside layer and the sunspot cycle. This study, of course, has been in progress at various commercial, educational and governmental institutions and laboratories in this country and abroad."

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Denial of an application by WMAS, Springfield, Mass., to shift its frequency from 1420 kc. to 560 kc. and increase its power to 1,000 watts was recommended this week to the Federal Communications Commission by Examiner Melvin H. Dalberg.

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PRESIDENT HAS WORLD AUDIENCE FOR SECOND INAUGURAL

Although the crowd on Capitol Plaza for President Roosevelt's inauguration was disappointingly small on account of the inclement weather, his radio audience was probably the largest in his four years of talking directly to the Nation's voters over the air.

Short-wave transmitting stations carried the Chief Executive's words around the globe, and reception was, in most instances, excellent, according to press reports, whether in Shanghai or Paris.

At least a dozen countries were tuned in on the inaugural broadcast, which occupied most of the day, and some 300 American stations carried the program to every nook and corner of these United States.

Countries to which the program was directed through the short-wave facilities of the Columbia Broadcasting System and the National Broadcasting Company, included France, Holland, England, Switzerland, Italy, Belgium, Austria, Latvia, Czechoslovakia, Brazil, Peru, Argentina and Uruguay.

Americans at London, Paris and Honolulu were brought to the microphone to comment on their reaction to the inaugural speech, as heard over the radio. There was in addition an NBC broadcast from the liner "Rex", in which several passengers told of hearing the program at sea, off the Azores.

Another broadcast was from the ancestral home of the Roosevelts in Oud Vossemeer on the Isle of Tholen in Holland. In this ancient Zeeland village, an announcer "escorted" listeners to the town hall and to the Roosevelt ancestral homestead, where Renville T. Emmett, American Minister to the Netherlands, spoke briefly.

Through W3XAL, short-wave station at Bound Brook, N.J., special broadcasts at various times were given in English, French, Italian, Spanish and German. Highlights of the Washington program were relayed to London at 11:50 A.M. by Felix Greene, representative of the British Broadcasting Corporation, as a prelude to the inaugural address.

Max Jordan, European representative of the NBC, spoke over W3XAL shortly after noon for listeners in France, Spain and Italy. Kurt Sell, of the Reichs Rundfunk Gesellschaft, Berlin, summarized the inauguration for German listeners between 1 and 1:30 P.M. The CBS commentator for France was Percy Winner, Paris newspaper representative, while Jorg Leal, Latin-American commentator, relayed the description southward for countries beyond the Caribbean.

Other short-wave transmitters carrying the program to foreign lands included Stations W2XE at Wayne, N. J.; W3XAU at Philadelphia; W8xk, Pittsburgh, and W2XAF, Schenectady.

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TYSON TO HEAD COLLEGE, QUILTS RADIO COUNCIL POST

Dr. Levering Tyson, of New York, who has been Director of the National Advisory Council on Radio in Education since 1930, will quit the radio educational field shortly to become President of Muhlenberg College at Allentown, Pa. He ends his duties as Director of the National Advisory Council about July 1st.

Dr. Tyson, who is 48 years old, has gained wide experience in educational affairs. He organized the home study department as one of the extension activities of Columbia University in 1919-1920. Invited to attend the original conference resulting in the establishment of the American Association for Adult Education, he was retained by that organization in 1929 to make a study of the possibilities of radio in education on behalf of the Association and the Carnegie Corporation of New York.

Out of this study developed the National Advisory Council on Radio in Education, for which he was selected as the first director, a position he has held ever since. In 1930 it was announced that through the cooperation of John D. Rockefeller, Jr. and the Carnegie Corporation, funds for the basic extension of the council and its maintenance for a period of three years were assured. Dr. R. A. Millikan of the California Institute of Technology was elected the first president.

Mr. Tyson is a member of the Federal Radio Education Committee and is Chairman of the Radio Subcommittee of the American Committee of the Institute for Intellectual Cooperation of the League of Nations; also Chairman of the Broadcasting Committee of the World Association for Adult Education.

In 1931, he was Chairman of the International Conference in Educational Broadcasting at Vienna. Last Summer he travelled through Europe, attending radio meetings in Edinburgh, Oxford, Geneva and Rome.

Always an advocate of the American broadcasting system as against the government-controlled methods in vogue in Europe, Dr. Tyson, nevertheless, has advocated adjustments in the American system to make it best serve the general needs of listeners. In this sense he has always been a friendly critic of radio in this country.

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A new broadcasting station for Port Huron, Mich., was recommended to the Federal Communications Commission this week by Examiner John P. Bramhall. The applicant, the Port Huron Broadcasting Co., asked for a permit to operate on 1370 kc., with 250 watts daytime.

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STATISTICS OF RADIO BUSINESS TERSELY TABLED

Following is a terse outline of the radio industry, which now has a flow of \$851,000,000 yearly, as compiled by Radio Today:

Uncle Sam's Annual Bill For Radio

Sale of time by broadcasters, 1936	\$114,000,000
Talent costs, 1936	36,000,000
Electricity, batteries, etc. to operate 33,000,000 receivers	150,000,000
8,000,000 radio sets sold in 1936	440,000,000
46,000,000 replacement tubes	31,000,000
Radio parts, supplies, etc.	45,000,000
Servicing radio sets	<u>75,000,000</u>
U. S. Public paid for radios in 1936	\$891,000,000

Radio Sets In Use

	<u>Jan. 1, 1936</u>	<u>Jan. 1, 1937</u>
U.S. homes with radios	22,869,000	24,500,000
Extra and "second" sets in above homes	3,000,000	4,000,000
Automobile radios in use	<u>3,000,000</u>	<u>4,500,000</u>
Total radio sets in use, U.S.	28,869,000	33,000,000
Total homes with autos	17,650,000	18,000,000
Total residence telephones	11,000,000	11,500,000
Total homes with electricity	21,030,000	21,800,000
Total homes in U.S.	31,000,000	31,471,000
Population U.S.	128,000,000	128,853,000

Roll-Call Of Radio Industry

Manufacturers of radio receivers	144
Manufacturers of radio tubes	13
Manufacturers of radio parts	620
Manufacturers of test equipment	55
Manufacturers of broadcast and amateur equip.	110
Manufacturers of sound equipment	95

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Radio Set And Tube Sales

	<u>Number</u>	<u>Retail Value</u>
Total radio sets sold during 1936	8,000,000	\$440,000,000
Radio sets exported	650,000	-----
Automobile radios	1,700,000	85,000,000
Home radios sold in U.S.	5,650,000	310,000,000
Home sets sold as replacements	3,900,000	215,000,000
Home sets sold to homes previously without radios	1,750,000	96,000,000
Home radios sold as extra sets	1,000,000	55,000,000
Battery sets	800,000	40,000,000
Tube replacements	46,000,000	31,000,000
Tubes, initial equipment	50,000,000	-----
Total tubes sold 1936	96,000,000	70,000,000
Parts, supplies, etc.	----	45,000,000

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SHIPS CLOSELY INSPECTED FOR RADIO ACT VIOLATIONS

During the past fiscal year there were 13,578 clearances from U. S. ports of American and foreign ships which are required to carry radio apparatus, the Federal Communications Commission reports. During the same period 6,337 inspections were made of the radio installations on these vessels which revealed 151 cases of violation of the law. In 145 of these cases the masters were served with official penalty notices. Corrective action was taken, however, prior to departure from port. In addition, 192 discrepancy notices were served on the licensees of these vessels for failure to comply with the provisions of international treaty or regulations of the Commission.

On ships voluntarily equipped with radio apparatus 3,108 inspections were made. Of this number 658 cases revealed defects and required the radio licensees to take corrective action.

There were 1,701 detailed inspections made of ship radio installations to determine if they met the license requirements as to frequency of operation, frequency stability, decrement, etc.

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CANADA DEVELOPING MUSEUM OF RECORDINGS

The Canadian Broadcasting System is rapidly developing a valuable museum of radio recordings that may well be of inestimable value to posterity. The recordings, most of which are of overseas broadcasts, are made at the CBC short-wave receiving station in Ottawa by means of the Blattnerphone equipment.

The invention of the Blattnerphone has made possible recordings of radio programs of any length and these recordings, which are not subject to the influence of time, atmospheric or physical conditions, can be used as often as required, according to the CBC.

Up to that time there had been recorded and placed in the archives important permanent recordings, among them being the Christmas message of His late Majesty, King George V, to the Empire in 1934; the opening of the 17th Parliament of Canada; the funeral services of Sir Arthur Currie; proceedings in connection with the Economic Conference in London in 1933; the Jubilee celebrations of 1935; the wedding of Their Royal Highnesses the Duke and Duchess of Kent in 1934; and the launching of the R.M.S. "Queen Mary" in 1934.

Recently there were added the farewell address to the Empire of the former King Edward VIII and the proclamation ceremonies of the ascension to the throne of King George VI.

The Blattnerphone, for example, uses steel tape as the recording medium and this tape, which is mounted on cast aluminum spools, is a mile and a half in length, three thousandths of an inch thick and a little over a tenth of an inch in width, and is capable of accepting programs of about half an hour's duration. It is interesting to note that a recording made by this machine is reproduceable with exactly the same clarity as at the time of the actual broadcast and that it is not subject to deterioration in any way. A recording made by the Blattnerphone may be kept indefinitely or "wiped out." When a tape is thus cleared it may be used again.

Another advantage which this system of recording offers is that long programs can be condensed, the CBC states. For example, the proceedings in connection with the opening of Parliament in 1935 resulted in a complete recording an hour and a half in length. Since, however, the event occurred during the afternoon, it was possible to eliminate unnecessary parts by re-recording, thus making it suitable for reproduction over the national radio network later that night. Only pauses in the ceremony were deleted and nothing of value was lost for the listener.

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RADIO "HAMS" STILL PERFORM YEOMAN SERVICE, SAYS FCC

The army of radio pioneers, popularly known as "hams", is still performing valuable public service although its period of contribution to the technical development of wireless transmission apparently has ended.

Discussing this group of licensees in its report to Congress, the FCC said:

"On June 30, 1936, there were approximately 46,850 amateur stations licensed by the Commission. Of this number many are affiliated with the Naval Communications Reserve and the Army Amateur Reserve system. A large number of these stations, as well as others not associated with the Army and Navy, continue to cooperate with the American Red Cross in times of emergency, providing communication between headquarters and areas affected by storms, floods, earthquakes, and similar catastrophes when other means of communication fail.

"During the past year amateur stations rendered valuable service to the public. Beginning early in July, 1935, with the flood in the Finger Lakes region of New York State, and continuing through the severe sleet and snow storms of the past Winter, the amateurs furnished in many cases the sole means of communication between the stricken areas and outside aid. Their services to the public during the disastrous floods of this Spring, which affected 14 States and isolated 20 large cities, were outstanding.

"Many amateur stations participated in the Navy Day competition held on October 28, 1935, when a message from the Secretary of the Navy to all amateurs was transmitted from the naval radio stations at Arlington, Va., and San Francisco, Cal.

"On November 11, 1935, the Chief Signal Officer of the United States Army transmitted a message to members of the Army Amateur Reserve system. These yearly events stimulate interest, encourage accuracy in receiving, and enable amateurs to test their skill and proficiency in the International Morse Code.

"Continuing the Commission's policy to encourage technical developments and operating proficiency in the amateur service, a number of rules respecting this service were revised during the past year. The technical and engineering requirements were increased with respect to the equipment used by amateurs, and on June 2, 1936, the Commission increased the code speed requirement from 10 to 13 words per minute.

"The Commission has been requested to allocate additional frequencies for radiotelephony in the 3,500-4,000 kilocycle amateur band in order to relieve some of the congestion existing in this frequency band due to the large number of amateur radiotelephone stations in operation. The Commission finds, however, many amateurs oppose any change being made in the present amateur frequency allocation. In order that all interested parties may be given an opportunity to present their views, a public hearing was set for October 20, 1936."

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BELGIAN CONGO NATIVES DISCARD DRUMS FOR RADIOS

When the natives of the Belgian Congo lay aside their hollow log drums and native musical instruments and tune in the white man's jazz and symphonies, most of them do so with the aid of American radios.

American radio receiving sets in the Belgian Congo constitute 75 percent of the total and of the nine different makes of radios on sale there, seven are of American manufacture, according to a report from the American Consul there, made public by the Commerce Department.

Although the white colony in the Belgian Congo numbers only about 20,000, the market for radios is very active and last November there were 1,421 receiving sets registered, at least 1,200 of them having been imported since July 1st.

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THERAPEUTIC MACHINES OFFER THREAT TO TELEVISION

The increasing use of electrical therapeutic machines on the part of hospitals and physicians, as well as the general public, has created a new type of interference to radio communications, according to the Federal Communications Commission's Engineering Department.

Discussing this type of interference in the FCC report to Congress, T.A.M. Craven, Chief Engineer, says:

"It was ascertained that the use of a diathermy machine in this country could interrupt an international radio communication service. Further, preliminary investigation indicates that interference caused by this type of machine may affect seriously the value of television broadcasting. In addition to this type of interference, the interference caused by the ignition system of an automobile may have a serious effect

upon the usefulness of the new portion of the radio frequency spectrum above 30,000 kc. which is now being developed. Preliminary investigations inaugurated by this Commission indicate that the problem is soluble, if the cooperation of the manufacturers of therapeutic machines, the manufacturers of radio, and the automobile industry can be obtained. However, at this time the Commission's investigation of this phase of radio interference is not completed."

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EDUCATIONAL PROGRAMS 40% OF TOTAL ON MOSCOW STATIONS

Approximately 40 percent of the hours of broadcasting on Moscow stations during 1936 were devoted to programs of an educational nature, according to a report to the Commerce Department from Loy W. Henderson, U.S. Charge d'Affaires at the Russian capital.

American networks devote about 25 percent of their time to educational broadcasts.

With the exception of a small number of amateur transmitters, all broadcasting and radio transmission stations in the Soviet Union are owned and operated by State organizations. The maintenance and management of the technical equipment of general broadcasting stations are in the hands of the People's Commissariat for Communication of the U.S.S.R., while the broadcasting is controlled and supervised by the All-Union Radio Committee, which is attached to the Soviet of People's Commissars of the U.S.S.R.

The All-Union Radio Committee is a central body which carries out the radio broadcasting programs of the main stations in Moscow and supervises the activities of seventy local committees in different parts of the Soviet Union.

"The operations of the All-Union Radio Committee and of the local radio committees proceed in accordance with plans, the broad outlines of which are made in advance for periods of considerable length", Mr. Henderson reported.

"Advertising in the sense in which that term is usually understood is not broadcast by Soviet radio stations. Such advertising as is broadcast is in the nature of informative bulletins advising the listeners as to the places where certain goods may be purchased, where certain services will be performed, and so forth, and is for the benefit of the prospective purchaser rather than for the benefit of the seller.

"Foreign business firms have not, apparently, at any time advertised over the Soviet radio broadcasting system. It is believed, moreover, that advertising over the Soviet radio would not, in view of the Soviet Government monopoly of foreign trade and other factors of merchandising peculiar to the Soviet union, achieve the purposes for which intended since such factors would seem to obviate the necessity for that type of advertising."

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RCA TESTING TELEVISION WITH NEW FCC STANDARDS

The first tests of high definition television using the new standards which have been recommended by the radio industry to the Federal Communications Commission are now being conducted by engineers of the Radio Corporation of America and the National Broadcasting Company.

Images scanned by the RCA iconoscope, the pick-up tube, at the rate of 441 lines per frame have been transmitted from the NBC experimental station in the Empire State Tower and successfully received by selected number of experimental television receivers in the homes of RCA-NBC engineers and technicians.

"Pictures of 441 line definition are much clearer than those of 343 lines, the definition employed in previous tests from the Empire State", said Lenox Lohr, President of NBC. "Another significant advance has been made in our work of television development. As we proceed in this fascinating adventure of bringing radio sight to distant eyes, it is encouraging to be able to report this substantial progress."

"The development of television service", said Mr. Lohr, "promises to be orderly and evolutionary in character and is a tribute to the radio industry which has enjoyed public favor on a scale that is most encouraging to its future. The public may purchase present day radio receiving sets with confidence as to their continuing serviceability. Television receiving sets cannot precede a television program service of satisfactory quality, which will be available at the beginning only in sharply restricted metropolitan areas following the eventual solution of technical, economic and program problems."

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DUN & BRADSTREET SAYS RADIO CLIMB WILL CONTINUE

Radio production, sales and broadcasting set new high records in 1936, and further advancement is expected in 1937, according to a report by Dun and Bradstreet.

Wage increases, expanding employment and rising automobile production were listed as factors likely to continue the prosperous condition of the industry this year. It was also stated that replacement sales may reach a new peak through improvements and new home construction.

More than 1,400,000 new homes were supplied with sets in 1936, bringing the total to nearly 25,000,000, it was reported. A new high in national advertising during the Summer was noted as contributing to gross time sales for the year, estimated at more than \$1,000,000. Production ranged from 20 to 25 percent higher than 1935, the report said.

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