

HEINL RADIO BUSINESS LETTER

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CAIRO RADIO PARLEY COMMITTEE MAKES FINAL REPORT

Broadening of the broadcast band for the North American region to include 1500 to 1600 kc. and more rigid requirements governing the technical quality of emissions by radio stations are recommended in the final draft of the proposals of the United States for the Cairo radio conference.

The proposals, made public this week by the Federal Communications Commission, suggest only minor changes in the world radio setup, but the major issue has not yet been decided, viz., the allocation of ultra-high frequencies above 30,000 kc.

The latter recommendation will not be drafted until proposals are received from other countries that will be a party to the Cairo conference as the United States is acting as the clearing house on this highly important question.

FCC engineers meanwhile are analyzing the volumes of testimony given by American broadcasters at the June hearing on ultra-high frequencies so that these ideas may be considered before allocations are recommended.

The United States proposals, which must be translated into French for distribution to all interested countries, will first be studied at a preliminary international radio conference at Bucharest in May, 1937.

Final decisions on world radio problems, however, will not be made until the general Cairo conference in February, 1938, which will cover telegraph and telephone communication matters as well as radio.

The final report of the United States editing committee represents months of intensive study by governmental and commercial technicians. As explained by Gerald C. Gross, of the FCC International Section, however, the Committee found on the whole that the Madrid conference of 1932 had done a good job and that it had few major proposals to make.

While agreeing to ask for a broadening of the broadcast band from 1500 to 1600 kc., three channels of which would be assigned to government services, the Committee rejected requests of the organized broadcasters and amateurs for additional channels.

James W. Baldwin, Managing Director of the National Association of Broadcasters, made a futile fight for inclusion in the proposals the channels 520, 530, 540 and 180 to 210 kc., inclusive.

The American Radio Relay League, an organization of amateurs, likewise was unsuccessful in a move to broaden bands for "ham" operators from 3500-4000 kc. to 3500-4500 kc. and from 7000-7300 kc. to 7000-7500 kc.

Dr. C. B. Jolliffe, former Chief Engineer of the FCC and now with the Radio Corporation of America, asserted that there are 127 active radio communication stations in the band from 4300 to 4500 kc. and 45 between 7300 and 7500 kc. K. B. Warner, of the Radio Relay League, insisted that many of these stations are merely "paper registrations" and aren't operating.

Recognizing the progress that has been made during the last four years in the technical phases of broadcasting, the Committee proposes more rigid international control of stations to compel their adherence to assigned frequencies.

"The waves emitted by a station must be kept on the authorized frequency as exactly as the state of the art permits", the proposals state, "and their radiation must be kept free as practically possible from all emissions not essential to the type of communication carried on."

Suggesting international cooperation and frequent checks of transmissions by national administrations as a means of minimizing interference, the Committee explains:

"The primary thought is that all the administrations concerned have periodically brought before them the facts as to the technical performance of emissions actually taking place in the radio medium (frequency stability, band widths, harmonics, etc.) the attaining of higher technical standards in practice will be facilitated and, in turn, interference minimized, and the number of channels made effectively available increased."

Because of the progress made in television and facsimile broadcasting since 1932 the Committee proposes new definitions of these services as follows:

"Facsimile transmission: the electrical transmission and reproduction of fixed images."

"Television transmission: The electrical transmission and reproduction of transient visual images."

To clarify the meaning of amateur service and to remove it from the grouping under "fixed service" the Committee proposes this new definition:

"Amateur service: A service of experimentation, self-training, and inter-communication, carried on by amateur stations."

The definition of broadcasting is likewise changed "to provide a definition more generally applicable to various forms of broadcasting." It reads:

"A service carried on by a station, the emissions of which are primarily intended to be received by the general public, regardless of the type of emission authorized."

With a view to further promoting the safety of life at sea, the Committee proposes that any radio station installed on board a ship be able to transmit and receive on at least two waves in the authorized band between 365 and 485 kc. as well as the S O S distress wave of 500 kc.

The Committee further recommends that the 500 kc. wave be used solely for distress calls and that more constant watches be required for S O S signals.

Finally, to facilitate the taking of bearings by radio direction finders in order to determine the position of a ship in distress, the Committee proposes that:

"A ship equipped with radiotelegraph, after having sent this distress message, shall transmit the alarm signal followed by the ship's call letter for a period long enough so that the ship and land stations equipped with radio direction finders may determine its position."

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ECLIPSE THROWS NEW LIGHT ON RADIO WAVE REFLECTOR

New data was obtained from observations of the recent total exlipse of the sun on the ionosphere, or electrified layer above the earth that reflect short radio waves, according to an announcement this week from Harvard University.

The movements of this ionized ceiling often disrupt short-wave radio transmission by allowing the waves to shoot up into space instead of reflecting them back to earth as normally.

Dr. Donald Menzel, of the Harvard Observatory, Director of the Harvard-Massachusetts Institute of Technology solar exclipse expedition to Siberia last Spring, reported the finding to the Harvard Summer School.

Dr. Menzel said the expedition's records indicated that the chief agent causing the electrification of this layer travels with the speed of light, and it probably is to be identified as extremely intense radiation in the far ultra-violet of the solar spectrum.

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PHILCO STAGES TELEVISION TEST AT PHILADELPHIA HOME

A television test, broadcast over a distance of seven miles with both indoor and outdoor scenes, was conducted in a home in suburban Philadelphia August 11th by engineers of the Philco Radio and Television Corporation. About 80 guests were present.

The demonstration was significant not only because of the clarity of the images shown but because it follows several private exhibitions in New York City by the Radio Corporation of America, outstanding Philco rival.

A description of the Philco demonstration as reported by a special correspondent of the New York Times follows, in part:

"Boxers exchanged blows in a roof-top ring in Philadelphia, soloists showed how they looked and acted when they sang before a studio 'camera' the same distance away, and the 'other end' of a telephone conversation between the home and the studio was both 'seen', and heard. Both ends of the conversation were heard by the audience.

"The images shown closely approached black and white tones and appeared clear and without evident distortion. William H. Grinditch, the company's chief engineer, said, however, that picture quality equal to that of home movies was the goal, and that greater perfection would be sought before an attempt would be made to enter the commercial television field. He predicted that commercial television would 'not come this year nor next.'

"The fifty-five minute experimental program given for the audience in Mr. Grinditch's home had company employees for some of the chief actors. After Miss Josephine Godfrey and Miss Betty McNelis had been observed and heard in several solos, Boake Carter, radio commentator, spoke from the studio and then picked up a telephone and called the Grinditch home.

"Following this there were broadcast a movie film and a round of boxing between two welterweights in a makeshift ring on the roof of the company's plant. Then the actions of a quartet, also appearing outdoors, were synchronized with some close harmony in 'Sleep, Kentucky Babe.'

"The audience also read the headlines on the sports page of a newspaper as the page was broadcast from the laboratory seven miles away.

"Later, at the laboratory itself, the audience saw a broadcast carried on concentric cable and noticed little difference between the wired and the radioed broadcasts.

"The field tests were conducted on a wave length of about six meters. The experimental screen used in the demonstration lay flat in the top of a phonograph cabinet and the audience actually saw images reflected on a mirror in the raised top of the cabinet.

"The images measured about 7 by 8 inches. In their field tests since December the Philco engineers have experimented with images made up of 345 interlaced lines, about the same number used in other television systems. Mr. Grimditch said, however, that this period of experimentation had indicated the laboratory had reached the nearest thing to perfection possible with this number of lines and the engineers planned to start immediately changing their equipment so as to produce an image of between 440 and 450 lines. This should result in images of greater sharpness, he declared.

"Neither Mr. Grimditch nor Larry E. Gubb, President of Philco, would estimate the cost of television receivers when they became available to the public, although a memorandum handed to the guests said some estimates had put it at \$500.

"A great deal of work must be done in transmitter and receiver development", the statement said, "and a great deal of money must be spent to assure transmitting facilities and programs for the prospective television audience. There are many other problems as well."

"Mr. Gubb commented: 'We don't believe that television is right around the corner, but we do believe it will result in a tremendous industry when it does arrive. We do not believe in doing anything premature.'"

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RADIO WORKSHOP HAS COMMENCEMENT VIA RADIO

Forecasting a day when the commencement speaker may speak to university graduates from a point hundreds or thousands of miles away, the Radio Workshop of New York University on August 13th held its first commencement exercises over the CBS network.

Dr. John W. Studebaker, U. S. Commissioner of Education, addressed the students from Washington. He said, in part:

"As members of the New York University Workshop, you have had the opportunity to train yourself in radio in association with the educational radio project of the Office of Education. You have had an opportunity to witness, analyze and take part in the five educational programs which this project is presenting every week.

"This educational radio project was established by the President to discover new ways of using radio in the service of education. If it has discovered new successful airways of learning and a growing mail response from every State indicates that it has, then I hope you will be able to carry back some of these needed ideas for use in your own community where you will be in charge of radio programs for school systems, colleges and universities."

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RADIO ADVERTISING UP 12% FOR HALF YEAR

Broadcast advertising during the first half of the current year showed an increase of 12.7% over the corresponding period of 1935, according to the National Association of Broadcasters. Gross time sales of the medium amounted to \$50,802,179 during the six-month period.

Advertising trends during the period were principally a continuation of those in evidence recently throughout the medium. Regional network and national non-network volume continued to show the greatest rate of growth. Radio broadcasting as a whole continued to hold its own with other major media as to percentage of increase over corresponding periods of previous years.

Local station non-network advertising volume again showed the greatest relative increase, while non-network business in the South and mid-West increased to a greater extent than that in other portions of the country.

A new trend of interest has been the marked growth of transcription volume in both the national and local fields. National transcription business showed an increase of 52.3% over the corresponding six months of 1935, while local volume increased by 41.8%. Live talent volume continued strong in both the national and local fields, while announcement business again declined.

Several trends of importance have developed as to radio advertising sponsorship. There has been a marked gain in automotive advertising throughout the entire medium. National and regional network beverage advertising increased to a considerable degree. National network and local drug advertising fell off markedly, while national non-network and regional network drug volume increased. Regional network and national non-network food advertising rose to an important degree. There were heavy declines in some of the minor national network classifications.

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SUIT TO TEST UNLICENSED USE OF THEATRE BY RADIO

Whether a theatrical license is required for a theatre where broadcasts are given which are attended by large invited audiences is to be decided in a suit filed in the Supreme Court in New York by the Dry Dock Savings Institution as owner of the New Amsterdam Theatre, New York City.

The suit was brought against Police Commissioner Valentine and License Commissioner Paul Moss to restrain them from interfering with broadcasts on the New Amsterdam roof, which has been leased to the Columbia Broadcasting System for thirteen Tuesday night broadcasts beginning September 1, and to the Mutual Broadcasting Company for fifty-two Sunday night broadcasts beginning August 9th.

License Commissioner Moss notified the bank that unless it obtained a theatrical license for the New Amsterdam before August 6, he "would cause the police to forcibly eject the persons attending the broadcasts."

The complaint alleges that the bank has been advised by its counsel that a theatrical license was not required and that the "threatened entrance on the premises by the police will constitute a trespass and nuisance."

The bank points out that at these broadcasts no fee is charged, gratuities to attendants are not permitted and the audience is invited.

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MORE POWER FOR THREE ILLINOIS STATIONS URGED

An increase in power from 100 watts to 250 watts day-time for three broadcasting stations on the outskirts of Chicago was recommended to the Federal Communications Commission this week. The stations are WHFC, WKBI, and WEHS.

Other Examiner's reports recommended denial of applications by J. T. Bilden and N. G. Barnard, of Walker, Minn., and the Hunt Broadcasting Association, of Greenville, Texas, for construction permit to erect new stations.

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TELEVISION TO BE EARLY 1937 REALITY SAYS RCA INSTITUTE

Television in the home is so close to becoming an eventuality that 36 moving picture operators are taking a special six months' course at the R.C.A. Institute, Inc., according to a press dispatch from New York, to prepare themselves for commercial television.

Home television sets, it was said at the Institute, will be put on the market shortly after Xmas for less than \$200 each. The 36 operators are members of Moving Picture Operators Local 306. Each pays \$150 tuition.

"We want to train our members so as to be on the ground floor when television arrives", Joseph Bassoon, President of Local 306, who conceived the class, said.

At a recent meeting of the Board of Directors of RCA Institute, a Board of Technical Advisors for the school was appointed, consisting of R. R. Beal, RCA's Research Supervisor; Harold Beverage, Chief Research Engineer for RCAC; L. M. Clement, Vice-President in charge of research and engineering at Camden; Dr. A. N. Goldsmith, RCA consulting engineer; O. B. Hanson, Chief Engineer of NBC; Dr. C. B. Jolliffe, Engineer-in-charge, RCA Frequency Bureau; and A. F. Van Dyck, Engineer-in-Charge of RCA's License Laboratory.

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GAS METER PICKS UP "HAM" BROADCAST

Mysterious voices heard in the basement of the home of Mr. and Mrs. Charles K. Munn, of 1928 Axton Avenue at Union Township, N. J., have been traced to a gas meter which picks up radio programs and makes them audible through vibration, a rare phenomenon, although not unusual, according to the New York Times.

Mr. Munn, a steel salesman whose only interest in radio is good reception, learned through a radio expert that the voices heard on the first floor of his two story residence were transmitter from an amateur radio station about 200 feet from the Munn home. It was found that one of the units of the gas meter apparently intercepts the radio waves and by vibration acts as a speaker. The amateur station operates on a frequency of 1,943 kilocycles at 160 meters.

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WGN TO GIVE GRID PROGRAM MINUS SPONSOR

Following the policy adopted by the station last year, WGN, The Chicago Tribune radio station, will again broadcast all collegiate football games during the 1936 season without a commercial sponsor. Each Saturday afternoon during the regular playing season Quin Ryan will broadcast one of the outstanding games of the Middle Western schedule.

Many of the WGN games will be carried by the stations of the Mutual Broadcasting System and the two service games between the Notre Dame and Army teams and Notre Dame and Navy teams will be fed to WGN through the facilities of the Mutual network. Other football games played in the East and broadcast through the Mutual network probably will be carried by WGN, this scheduled to be announced later.

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N. Y. TUGBOATS GET TWO-WAY RADIO PHONES

Two-way radio telephone service for craft in New York Harbor and nearby waters will become available commercially next Thursday morning, the New York Telephone Company announced this week. This new service follows tests the company has been making on seven boats in the harbor.

The cost of a call will be \$3 for three minutes. Calls, it was said, could be made through any telephone. Long distance operators transfer the call to the marine operator for connection with all vessels equipped with the new radio telephone. The vessel called must be designated by name. The service will make possible quick communication in case of accidents and other emergencies in the harbor. It will make it possible for tugboat captains to communicate with their offices ashore without having to tie up to a pier or obtain the information through a system of signaling.

An improved method of calling the boats by a selective signaling apparatus is being used by the telephone company.

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INVENTOR SHOWS MACHINE TO CABLE DIFFERENT COLORS

A report from Paris last week indicates that Howard Ketcham, American inventor, demonstrated a machine for cabling color variations in the office of the Commercial Cable company there. The demonstration was made in sending colors of Paris dressmaking collections to New York.

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NBC SHOWS "COST PER LISTENER" HAS DROPPED SINCE 1927

Citing the constantly growing radio audience, the National Broadcasting Company in charts just distributed seeks to show that the cost of radio advertising over its networks has decreased 56 per cent per listener since 1927.

"From 1927 to 1936 the number of radio families served by the nationwide NBC Red network increased from 4,297,000 to 22,400,000 or from 71.6% to 97.9% of all radio families in the United States", NBC said.

"During the same period the number of radio families served by the nationwide NBC Blue network increased from 4,174,000 to 21,500,000, or from 69.6% to 94% of U. S. radio families."

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INDUSTRY NOTES

Chicago Macaroni Company, trading as A. Morici & G. Matalone Company, Chicago, has been ordered by the Federal Trade Commission to cease and desist from the use of unfair methods of competition in the sale of a product designated "Italy Brand Table Oil." The respondent advertises by radio.

E. R. Riddle, who has been in charge of the activities of R.C.A. Communications, Inc., in the Philippines, has returned to New York to take up duty with the Engineering Department, 66 Broad Street.

Alleging unfair competition in connection with the sale of a hair treatment designated "Pro-Ker", the Federal Trade Commission has issued a complaint against Pro-Ker Laboratories, Inc., 10 East 49th St., New York City, a radio advertiser.

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CONSTRUCTION BEGIN ON NEW ANTENNA FOR WJZ

Construction was begun this week on a new 640-foot vertical radiator antenna for NBC Station WJZ, at Bound Brook, New Jersey, designed to make the key outlet of the NBC's Blue Network one of the world's most modern radio stations. The new antenna will be completed in time for operation on NBC's Tenth Anniversary, November 15th.

One of the most interesting features of the new antenna is the lighting system, worked out by engineers of the National Broadcasting Company, the Department of Commerce, and technicians of the air transport companies in the metropolitan area. On top of the tower will be located an aviation beacon with duplicate filament bulbs of such intensity that, under favorable conditions, the light beam will be visible beyond Philadelphia. The huge light will flash 40 times to the minute, and will be supplemented by stationary lights on the three sides of the slender triangular tower. When the new antenna is completed it will represent all the latest advances in radio broadcasting, according to Raymond Guy, NBC Radio Facilities Engineer.

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ANGOLA OFFERS PROSPECTIVE RADIO MART

Although there is now only one amateur broadcasting station in Angola, the outlook in the Angola radio market may be considered as fairly good, according to Andrew W. Cruse, Chief, Electrical Division, U. S. Bureau of Foreign and Domestic Commerce.

"Plans are being made for the establishment of a radio network embracing the entire Portuguese empire", he said, "and the materialization of these plans together with the establishment of good broadcasting stations in Angola should result in a great increase in the use of radio receiving sets in the Colony. The gradual extension of electric current throughout the colony should also stimulate radio sales. On the other hand, the use of the radio is not apt, in the near future, to extend much beyond the relatively small foreign colony of about sixty thousand persons, nearly 97 percent of whom are Continental Portuguese."

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