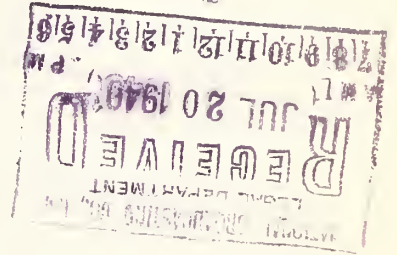


HEINL RADIO BUSINESS LETTER

2400 CALIFORNIA STREET

WASHINGTON, D. C.

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No. 1251

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FCC AND RMA MOVE TO BREAK TELEVISION DEADLOCK

The Federal Communications Commission and the Radio Manufacturers' Association moved jointly this week to expedite the commercialization of television.

Following the suggestion of the FCC last May, when the latest television regulations were issued, the RMA announced the organization of a National Television Systems Committee which includes non-members. Chairman James L. Fly, of the FCC, welcomed the Committee as a "splendid opportunity for the cooperation of industry and Government in the solution of a problem which is of such timely concern to the public and to business."

Organization of the RMA Committee was announced by Bond Geddes, Executive Vice President, upon behalf of J. S. Knowlson, the new President of the Association.

Invitations have been sent, it was said, to the following companies to nominate representatives on the Television Systems Committee:

Columbia Broadcasting System, Inc., Don Lee Broadcasting System, Allen B. DuMont Laboratories, Inc., Farnsworth Television & Radio Corporation, General Electric Company, Hazeltine Corporation, J. V. L. Hogan, Hughes Tool Company, Institute of Radio Engineers, Philco Corporation, Radio Corporation of America, Stromberg-Carlson Telephone Manufacturing Company, and Zenith Radio Corporation.

Dr. W. R. G. Baker of Bridgeport, Conn., Director of the the RMA Engineering Department, and an official of General Electric, has been appointed Chairman of the new National Televisions Systems Committee. The Chairman, while correlating the work of the Committee, will have no vote.

"I think I am safe in saying that both the Commission and RMA feel that in this way we are setting the vexing problem of television standards on a path which will lead to a satisfactory solution", said Mr. Knowlson. "We are both encouraged to feel that by so doing we are serving the interests of all concerned."

A meeting of the Committee with Chairman Fly and possibly the FCC Chief Engineer, E. K. Jett, was expected to be held the latter part of this month, probably July 31, in New York City.

The FCC, in a formal release, stated that in following through its promise of May 28th that it "stands ready to confer with the television industry and otherwise assist in working out

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television's remaining problems." The Committee, the FCC said, "should be of value in the advancement of television to a satisfactory level of performance that will insure a general and widespread public service."

The Commission recently paved the way for an increased number of television stations throughout the country with a view to crystalizing their experimentation with different systems into a uniform standard upon which commercialized visual broadcasting may be safely launched. A previous television hearing had revealed a serious conflict of engineering opinion upon the question of standards among the representatives of various responsible elements in the industry engaged in important research and experimental work.

"Because of the inadequacy of the various suggested standards", the FCC continued, "the new group will explore existing television systems with a view to developing and formulating standards that will be acceptable to the industry as a whole in expediting establishment of a single well-founded national system - one which has promise of ultimately giving this country more television stations and receivers than all other nations combined, with resultant benefits to manufacturers, dealers, and broadcasters, as well as the public.

"This project, though sponsored by the Radio Manufacturers' Association, will operate independently and represent the majority opinion of the industry. Membership will not be limited to the association; it will embrace representatives of companies broadly interested and experienced in the television field, also representatives of national technical organizations desirous of seeing television launched on a firm footing, as well as individual experts."

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RADIO FREEDOM SHOWS IMPROVEMENT, SAYS UNION

Freedom on the radio has shown marked improvement during the past year, according to the American Civil Liberties Union in its report issued this week.

The organization found that censorship of motion pictures, plays, books, and radio declined sharply last year.

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FIRST TELEVISION STATION FOR SAN FRANCISCO SPEEDED

Television experimentation tending to develop uniform transmission standards of acceptable technical quality, plus equipment tests and training of technicians, in addition to experimental programs which the public may enjoy, are assured by the National Broadcasting Company, through its station W2XBS at New York, and the Don Lee Broadcasting System, through W6XAO at Los Angeles and a proposed station to be located in San Francisco.

Besides confirming its previous tentative approval of construction of the San Francisco station, the Federal Communications Commission has authorized the other stations mentioned to use the new television channel No. 1 (50,000-56,000 kilocycles). This is in conformity with the Commission's announcement of June 18 encouraging the widespread distribution of experimental facilities to promote advancement of television.

Stations W2XBS and #6XAO operated on the former television channel No. 1 (44,000-50,000 kilocycles) which, on May 22, was removed from the television band. The Commission's approval of the use of the new television channel No. 1 was conditioned upon showing of acceptable programs of research and development.

National Broadcasting Company reported that its New York station will continue to use the RMA standard but will increase the number of frame lines from 441 to 507. In collaboration with RCA, it will review the various types of transmission standards under laboratory conditions and, if necessary, undertake full scale field testing. Chance in polarization of W2XBS transmission would interfere with reception by receivers in the area served, since antennas there are for horizontal polarized signals. However, polarization studies will be conducted by RCA subsidiaries. NBC hopes to make the necessary equipment changes for utilizing the new channel during the Summer when audience interest is at a minimum. The work will require about two months.

Both Don Lee stations will experiment with television transmission using 525 lines, 30 frames interlaced, or 441 lines, 30 frames interlaced, and possibly television signals of other composition. These stations will make tests to determine the effect of the different power supply systems on reception of television images, and propagation characteristics and signal-to-noise ratios will be compared with vertical and horizontal polarization. Studies will also be made of co-channel interference between the Los Angeles and San Francisco stations.

Station W2XBS operates with 12 kilowatts visual and 15 kilowatts aural power, and W6XAO with 100 watts visual power and 150 watts aural power. The proposed San Francisco station will use 1 kilowatt aural and visual power.

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TIME EXTENSION GIVEN INTERNATIONAL STATIONS

Six months extension of time to comply with the rule that international broadcast stations must operate with power of not less than 50 kilowatts has been granted by the Federal Communications Commission in the case of eight such stations which have outstanding construction permits or have applications pending to reach that minimum power.

These stations and their present authorized power are: WPIT, Westinghouse Electric & Manufacturing Co., which is to move to Hull, Mass., 50 kilowatts; WRUL, World Wide Broadcasting Corp., Scituate, Mass., 50 kilowatts; WCBX, Columbia Broadcasting System, near Wayne, N. J., 10 kilowatts; KGEI, General Electric Co., San Francisco, 20 kilowatts; WGEA, General Electric Co., Schenectady, N. Y., 25 kilowatts; WNBI, National Broadcasting Co., Bound Brook, N.J., 35 kilowatts; WRCA, National Broadcasting Co., same place, 35 kilowatts, and WRUW, World Wide Broadcasting Corp., Scituate, Mass., 20 kilowatts.

Stations which are already complying with the minimum power prescribed in Section 4.45 of the Rules Governing International Broadcast Stations now extended to January 1, 1941, are WLWO, Crosley Corp., Mason, Ohio, 50 kilowatts, and WGEO, General Electric Co., So. Schenectady, 100 kilowatts.

The remaining international broadcast stations, which have not yet moved to bring power to the required minimum, are WCAB, operated by the WCAU Broadcasting Co., Newton Square, Pa., 10 kilowatts; WDJM, Isle of Dreams Broadcasting Corp., Miami, Fla., 5 kilowatts, and WBOS, Westinghouse Electric and Manufacturing Co., Millis, Mass., 10 kilowatts.

Meanwhile, the Commission has acted in individual international broadcast station cases as follows: Granted the application of World Wide Broadcasting Corp. for modification of license of WRUL, at Scituate, Mass., to operate unlimited time on 6040 kilocycles, and set for hearing application by the same company for unlimited operation of WRUW, at Scituate, Mass., on 6080 kilocycles; granted application of the Crosley Corp. for unlimited time operation by WLWO, at Mason, Ohio, on 6080 kilocycles; and deleted station WDJM, at Miami, Fla., which shared frequency with WRUL and has now sold its equipment to that station.

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Dr. Frank Kingdon, nationally known social leader and Executive Director of the Citizenship Educational Service, has been added to the list of the speakers at the Eighteenth Annual Convention of the National Association of Broadcasters in San Francisco August 4-7.

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BRITISH BIGGEST BUYER OF U. S. RADIOS

United States exports of radio receiving sets increased from \$655,679 in April of this year to \$779,732 in May, according to John H. Payne, Chief of the Electrical Division, Bureau of Foreign and Domestic Commerce.

The United Kingdom was the chief contributor to this advance with purchases of 14,218 sets valued at \$120,513, an improvement of more than 800 percent in number and 300 percent in value over April purchases of 1,546 units valued at \$30,407. Sizable purchases were also credited to Brazil, Union of South Africa, and Mexico, their respective shares being \$85,817, \$69,172, and \$63,739. Other less important, but still noteworthy outlets were found in British India, Cuba, Venezuela, Philippine Islands, Colombia, China and Chile.

Of the total foreign shipments of transmitting sets, tubes and parts which aggregated \$308,775, China accounted for \$108,105 while Switzerland ranked second with \$35,221.

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SIX ATTORNEYS JOIN FCC LAW DEPARTMENT

The Federal Communications Commission this week announced the following additions to its legal staff:

Lucien Hilmer, who was in charge of the New York office of the Senate Interstate Commerce Committee in its railroad investigation, to be special counsel.

David Lloyd, formerly Assistant Chief Counsel of the Senate Civil Liberties Committee, to be Special Counsel in charge of an investigation unit within the Law Department.

Oscar Schachter, from the Wages and Hours Division of the Department of Labor, to be an associate attorney.

Leo Resnick, from the field legal staff of the Public Works Administration, to be associate attorney.

Marcus Cohn, graduate of the University of Oklahoma, University of Chicago Law School and Harvard Law School, to be associate attorney.

Philip Elman, at present law clerk to Circuit Judge Calvert Magruder of the First Circuit, to be assistant attorney.

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FCC BEGINS HIRING RADIO OPERATORS

Because of the urgency of enlarging its field staff, the Federal Communications Commission this week announced it would begin hiring radio operators at once and permit them to take Civil Service examinations while temporarily employed.

"In view of the emergency", a statement said, "the Federal Communications Commission is prepared to accept applications from licensed commercial operators and amateurs for appointment as radio operators in the field service, with the understanding that those selected will be given temporary employment for ninety days and examined during that time by the Civil Service Commission. The temporary employees who pass the Civil Service examination, and are reached in the order of their standing on the eligible list, will receive indefinite probationary appointment on a temporary basis as the present emergency may justify."

Some of the appointees will be assigned to Alaska, Hawaii, and Puerto Rico.

Persons holding radiotelegraph first class licenses will be appointed to fill positions at \$1800 per annum and those holding radiotelegraph second class licenses at \$1620 per annum. Amateur licensees are eligible providing they possess certain qualifications and are between 21 and 55 years of age.

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DEMOCRATS PLACE RADIO ON PLANE WITH PRESS

Following the lead of the Republican convention, the Democrats in Chicago this week adopted the following platform in its platform with regard to radio:

"Radio has become an integral part of the democratically accepted doctrine of freedom of speech, press, assembly and religion. We urge such legislative steps as may be required to afford the same protection from censorship that is now afforded the press under the Constitution of the United States.

"We must strengthen democracy by improving the welfare of the people. We place human resources first among the assets of a democratic society."

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For Release - Sunday, July 21, 1940

WESTINGHOUSE DEVICE STOPS WASTE OF RADIO WAVES

Station WBZ will stop wasting radio waves over the Atlantic when its new 50,000-watt transmitter is opened in Hull, across the harbor from Boston, on July 27, according to Ralph N. Harmon, Chief Radio Broadcasting Engineer of the Westinghouse Electric and Manufacturing Company.

With a modern "traffic cop" antenna, the station will put its radio signals on a one-way avenue and concentrate their strength in a westerly direction, Mr. Harmon explained.

He said that WBZ's problem was to prevent the wasting of waves that would normally be spread out over the Atlantic Ocean. The method adopted will reflect the ocean-bound waves back inland and thus effectively double the station's power for listeners in southern New England. At present WBZ's transmitter is located at Millis, Mass., about 10 miles west of Boston.

"To accomplish this effect", stated Mr. Harmon, "two transmitting antennas in the form of tall towers, have been erected about 250 feet apart along an east and west line at Hull. Radio signals will be sent out from both antennas, but the westernmost one, called the director, will let them go about one four-millionth ($1/4,000,000$) of a second later than its twin, the reflector."

As a result, Mr. Harmon went on to explain, waves from the reflector will reach the director just in time to match, or be "in phase" with the waves travelling westward. The effect will be to send waves of double strength inland.

But in the other direction (toward the ocean) waves from the director will reach the reflector out of phase (unmatched) with the waves going oceanward from the reflector. "In other words, the two sets of waves in this direction will be pushing in opposite directions, since they are one quarter of a wavelength apart, and their power will cancel out, leaving no wave at all."

The effect of the reflecting antenna was explained as the same as when a polished reflector is used behind a lamp to direct all its light in a desired direction.

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The Federal Communications Commission has denied a petition of the Press-Union Publishing Co., licensee of Station WBAB at Atlantic City, N. J., for rehearing of the Commission's action in issuing a construction permit to the Neptune Broadcasting Corp. for a new station at that place to operate on 1420 kilocycles with 100 watts power night and 250 watts until local sunset. Station WBAB operates on 1200 kilocycles with 250 watts power, unlimited time.

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BBC TAKES TO UNDERGROUND COVER

With Britain threatened with invasions, the British Broadcasting Company has announced that radio spokesmen have been moved to bombproof shelters constructed deep in the earth "somewhere in England". The nightly short wave talks have been emanating from these concrete "catacombs" since July 7, according to a BBC announcement.

All precautions have been taken in order to be able to continue the short wave transmissions with some assurance of safety to the broadcasters, it was stated. Anti-aircraft battery crews, supported by men in sand bagged machinegun nests, scan the skies close to the microphone locations.

These wartime studios are protected by thick layers of concrete which it is expected will withstand the heaviest bombs. They are designed to be soundproof. Overhead artillery crashes, it is expected, will not disturb speakers or engineers beneath.

Discussing these "modern catacombs of broadcasting", J. B. Priestley, in a recent talk in the "Britain Speaks" series, said he and his fellow broadcasters in the BBC overseas service had come to take these conditions almost for granted.

"There are different types of accommodation for speakers according to the conditions prevailing at the time", the novelist explained. "But even if cabinet ministers and members of parliament have to put up with inconvenience, the voice of Britain will still be heard. Sometimes an air raid warning sounds just as a scheduled broadcast to America is about to begin. Studios are chosen accordingly."

Besides those given by Mr. Priestly, several talks each week on short-waves for American listeners are presented by Vernon Bartlett, who interprets the three minute summary of the latest news which begins at 7:00 P.M. in the course of a 12 minute talk immediately following.

The "Britain Speaks" series, is now aired at 8:30 P.M. Ministers, including heads of departments, are heard from time to time. Their talks will each last 15 minutes, and be followed by an entertainment period featuring American stage and motion picture stars now in Great Britain. This continues until the beginning of the news summary and commentary.

The programs are heard on both 9.58 and 11.75 megacycles (31 and 25 meters) from GSC and GSD.

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BROADCAST COVERAGE INCREASED THROUGH MUTUAL ARRANGEMENT

Another example of mutual cooperation by widely-separated broadcasting stations to improve public service is reflected in action this week by the Federal Communications Commission in granting construction permits to WCHS, at Charleston, W. Va.; WDBO at Orlando, Fla., and WIBW at Topeka, Kans., to increase night power to 5 kilowatts. The three stations operate on 580 kilocycles. By working out directional antenna systems they are able to greatly increase their respective coverage with a minimum of interference to one another.

WCHS, licensed to the Charleston Broadcasting Company, has heretofore operated with 500 watts night and 5 kilowatts day, while WDBO, Orlando Broadcasting Co., Inc., and WIBW, Topeka Broadcasting Association, Inc., have operated with 1 kilowatt night and 5 kilowatts day.

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Radio's part in furthering favorable relations among the Americas is being augmented with establishment by the Columbia Broadcasting System of a short-wave studio in Inter-America House at the New York World's Fair. Through arrangements completed between CBS and the Program Committee of Inter-America House, Columbia will have exclusive use of the studio to bring noteworthy events at the Fair to listeners in South America over both WCBX, New York, and the network's Philadelphia short-wave outlet, WCAB. This extensive schedule is to be inaugurated Wednesday, July 24, with a program commemorating "Simon Bolivar Day."

The National Labor Relations Board has announced an order requiring Indianapolis Power & Light Company, Indianapolis, Indiana, owner of Station WFBM, to cease discouraging membership in the CIO's United Utility Workers Organizing Committee and the AFL's Associated Broadcast Technicians' unit of the International Brotherhood of Electrical Workers, or in any other labor union. The company was also required to cease encouraging membership or in any manner supporting or assisting Indianapolis Power & Light Employees' Protective Association.

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I. T. & T. GETS CAA RADIO EQUIPMENT ORDER

The International Telephone Development Company, subsidiary of the International Telephone and Telegraph Corporation, has received an order amounting to \$537,547, from the Civil Aeronautics Authority to manufacture and install airplane instrument landing systems at the airports of six cities in the United States: LaGuardia Field, N.Y.; Municipal Airports at Chicago, Cleveland and Kansas City; Mines Field, Los Angeles and Meacham Field, Fort Worth.

With the exception of experimental installations, these instrument landing systems will be the first ever contracted for by the United States Government for utilization by the commercial airways and will mark a decided advance in the application of ultra-high frequency radio to aerial navigation. They will enhance the safety of flying as well as relieve the congestion caused at busy airports during times when large numbers of airplanes must their turn for landing when weather conditions are unfavorable.

The C.A.A., other government agencies and private companies have spent thousands of dollars and years of experimentation and research to bring about this contribution to the safety of flying. The International Telephone Development Company was the contractor for the final stages of this development work and designed, built and installed for the C.A.A. four instrument landing systems at Indianapolis, Indiana in 1938. With these systems every conceivable test was made under all kinds of weather conditions, so that today, in the installations about to be built, all "bugs" are believed to have been eliminated and certainty of operation assured. This system was reported upon favorably by a special committee of members of the National Academy of Sciences which was requested by President Roosevelt to undertake the study of the problem of standardizing instrument landing equipment for airplanes.

The installation of these equipments will commence early in 1941 and they will be placed in operation about the middle of the year.

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U.S. RADIOS NOT ADAPTED FOR TROPICS, SAYS COOGAN

Exports of radios to South America have grown smaller because American manufacturers do not produce sets especially designed for tropical climates, W. A. Coogan, Foreign Sales Manager of the Hygrade Sylvania Radio Tube Corporation, declared this week following his return from a trip to South and Central America to explore markets.

He said that, although South American countries were finding themselves forced to make their own sets, the parts and accessories business was favorable, according to the business page of the New York Times.

Mr. Coogan said he had observed unfavorable economic conditions throughout South America, due to heavy farm surpluses which were piling up as a result of the war. He pointed out that in Argentina the loss of European markets had meant a loss in exports of 60 percent of their corn crop, 56 percent of their hides, 40 percent of their wool and 25 percent of their meat. Argentina, he continued, has surpluses of 20,000,000 bushels of wheat, 300,000,000 bushels of corn and 500,000,000 million pounds of beef.

"The unfortunate part of the situation", he went on, "is the fact that the United States has surpluses of the same commodities."

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RADIO MAKERS READY FOR F-M BROADCASTING

Radio manufacturers are of the opinion that the advent of frequency modulation, the new system of radio transmission and reception, will be taken in stride by the industry, according to the Chicago Sunday Tribune. Many manufacturers are now in production on F-M receiving sets and others are preparing to start production.

The position of Radio Corporation of America, leading manufacturer in the field, is as yet not clearly defined, but officials indicated that they would have F-M receivers on the market this Fall if the public demand justifies such a step. On the other hand, a majority of the independent manufacturers regard the development as a major advance in the industry and are prepared to exploit it fully.

General Electric Company, Stromberg-Carlson Telephone and Manufacturing Company, and others have started F-M merchandising campaigns to enable them to increase production and reduce prices.

Among those who plan to bring out F-M sets this Summer and Fall are RCA, Zenith Radio Corporation, Stewart-Warner Corporation, and Farnsworth Television & Radio Corporation. Philco Corporation has announced that its 1941 models will be constructed so that they can be converted to F-M.

E. F. McDonald, Jr., President of Zenith, one of the leading experimenters with television, said that the company would have a combination F-M and standard receiving set on the market November 1. The company was prepared to introduce a line last Spring, he said, but withheld it until standards would be set.

"Frequency modulation has none of the economic hurdles of television", he said. "For some time, F-M will be a supplementary system to A-M (amplitude modulation, the standard technique.)"

The high costs encountered for television programs will not arise for F-M broadcasting, he explained. Staging, scenery, costuming, lighting, and more rehearsals to enable actors to memorize their lines are important factors increasing television expenses.

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