

HEINL RADIO BUSINESS LETTER

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SECOND SECTION OF FCC PROPOSED RULES ISSUED

The Federal Communications Commission today (Friday) issued the second and final part of the Committee report on proposed rules governing standard broadcast stations and standards of good engineering practice. Totalling more than 500 pages, and containing scores of charts and tables, part two of the report of the Committee, composed of Commissioners Norman S. Case, Chairman, T.A.M. Craven, Vice Chairman, and George Henry Payne, supplies evidence supporting the conclusions reached in the first section of the report which was issued on January 18, 1939.

Specifically, however, the report makes certain definite recommendations which were not contained in the first section. While a longer license period was advocated in part one of the report, part two makes a flat recommendation that the license period for standard broadcast stations be increased from the present six months to a period of one year. This, the report states, "will assist in stabilizing the broadcast industry without reducing the necessary control of the Commission over the licensees."

While the report incorporates many of the recommendations and suggestions made by the industry, it carries forward the Committee's earlier stand against super power. Devoting some 20 pages and an entire sub-section of the report to a discussion of this subject, the Committee states that it "deems it unwise to conclude that the existing data are sufficient to warrant a conclusion in favor of super power. . . . The several considerations governing the interest of the public in general broadcasting structure", says the report, "are too great to warrant taking speculative risks, unsupported by adequate data, even though it be true from a technical standpoint that 500 kw. power is one of the methods to improve service in rural areas".

The Committee's report also recommends extension of the broadcast band from 550 to 1600 kc. inclusive instead of from 550 to 1500 kc. inclusive, as at present. No new allocation of stations is proposed in the band 1500 to 1600, on which frequencies four special broadcast stations are now assigned. These stations are to be classed as regional channel stations, instead of special broadcast stations.

In making recommendations as to the regulation of the technical phase of broadcasting, the Committee states that, "Every effort has been made to make the proposed rules as flexible as possible as it is believed that by this means the fullest usage can be made of the broadcast facilities at the present time as well as providing for the future as the state of the art advances".

Other important changes in the rules, recommended by the Committee, are as follows:

1. Establish three classes of standard broadcast channels.
2. Establish four general classes of standard broadcast stations.
3. Increase power of stations where needed and where technically feasible.
4. Requirements for applicants.
5. Experimental authorizations.
6. Extend use of duplicate transmitters.

While the major part of the report deals with the existing situation in radio broadcasting and proposed procedure for improving service, and is of a somewhat technical nature, there are separate sections dealing with the social aspects and the economic aspects of the broadcasting industry.

Certain of the charts and tables contained in these sections of the report reveal an interesting picture of the operation of the industry. It is shown in one of these charts that more than half (52.45%) of all the time on the air used by radio stations is taken up in music. In second place, come talks and dialogues which occupy 11.41% of broadcasting stations' time on the air. An interesting sidelight on this wide use of music is revealed in a table which lists the revenue classification of stations by type of programs. Here it is shown that stations earning \$1,000,000 or over use musical programs in only 37% of their broadcasts, whereas the small commercial stations, earning up to \$15,000, broadcast musical programs 61% of their time on the air.

The section dealing with the economic aspects of broadcasting states that during the period from 1922 to 1937, more than 53 million radio sets were sold with a retail value of nearly 4 billion dollars. The present day investment by the broadcasting industry in stations and equipment is shown to be approximately 50 million dollars, plus an additional 9 million dollars in network plant equipment.

The report states that the broadcasting industry (networks and 629 stations) sold time in 1937 valued at nearly 118 million dollars; and during an average week in 1938 the industry employed 17,085 full-time employees, and 5,820 part-time employees.

The Committee's report on proposed rules governing standard broadcast stations and standards of good engineering practice is legislative, rather than judicial in character. Similar, however, to the procedure used in Examiners' reports, the Commission will grant opportunity to all interested parties to file exceptions, and will hear oral argument, before the report will be taken up by the Commission as a whole for final action.

The three-man FCC Committee indicated that the Government may take steps to protect newspapers from "unlimited" competition from radio stations.

They recommended at the same time that the FCC grant broadcasting licenses for one year instead of six months.

"It cannot safely be argued", the report stated, "that Congress always will permit radio licensees unlimited opportunity to secure all advertising business to the serious detriment of the economic structure of important and necessary services rendered to the public by unlicensed media."

The Commissioners added that extension of license periods from six months to a year would stabilize the broadcasting industry, which long has urged such a move to eliminate uncertainty over continuance of operations.

The Commissioners, emphasizing widespread economic effect of high-powered stations and feeling that the broadcasting industry is not yet able to harness the excessive powers which electrical science provides, said:

"It cannot be concluded safely that if radio competition with other media should be highly successful, the public interest would be served by permitting the economic annihilation of these other media.

"Consequently, it may be possible that influence might be exerted to stem an economic trend having adverse social effects. Such a movement has been attempted already but so far without success."

The Commissioners pointed out that newspapers "have a far greater capital investment and affect the employment of many thousands more people than radio.

"Labor displacement resulting from technological development is one of the social problems of the modern age and consequently this is a significant economic factor to be considered in the future of radio advertising business."

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VARIABLE ANTENNA AUTHORIZED IN FCC GRANT

Authority for Station KTKC, Visalia, Calif., to install a new transmitter and erect an antenna system which may be used as a conventional antenna during the day and a directional antenna at night on 890 kc. was granted by the Federal Communications Commission this week.

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PLANS COMPLETED FOR RMA CONVENTION

Tentative plans for the annual gathering of the radio industry at Chicago next June, for the fifteenth annual RMA convention and the National Radio Parts Trade Show at the Stevens Hotel, have been completed, according to Bond Geddes, Executive Vice-President. The RMA convention will be held June 13-14, and the National Parts Show will occupy the Stevens Hotel Exhibition Hall, June 14-17. Already nearly all exhibit space for the parts show, sponsored jointly by RMA and the Sales Managers Clubs of Chicago and New York, has been reserved. A "radio special" train will again be run from New York.

An innovation this year will be the site of the annual radio industry banquet, the "RMA Cabaret-Dinner", for Association members and guests. This social event of the radio gathering, scheduled Wednesday evening, June 14, will be held in the Terrace Casino of the Morrison Hotel. The RMA convention meetings and the parts show, however, will be held in the Stevens Hotel. Chairman Paul V. Galvin and the RMA Convention Committee are arranging a program of cabaret entertainment at the Terrace Casino.

Another social event will be the annual radio industries golf tournament on Thursday, June 15, at the Calumet Country Club.

President A. S. Wells of RMA and the Convention Committee are arranging for many industry meetings during the annual June radio gathering. Also there will be meetings of the Sales Managers Clubs, the Radio Service Men of America, "The Representatives", and other organizations of the industry. All four RMA general divisions of set, tube, parts and amplifier manufacturers, will hold meetings.

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WLW CARRIES CASE TO COURT OF APPEALS

The Crosley Corporation this week filed an appeal in the U. S. Court of Appeals for the District of Columbia from the District Court decision upholding the cancellation by the Federal Communications Commission of WLW's 500 kw. experimental license.

Actual losses in revenue as a result of the reduction in power and subsequent 10 percent cut in advertising rates were cited by Duke M. Patrick, WLW attorney, in a brief filed with the court.

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RADIOTELEPHONY PLAN FOR GREAT LAKES APPROVED

The Federal Communications Commission this week announced approval of a temporary plan for improving the use of radiotelephony in safety communication on the Great Lakes. It is a temporary arrangement effective March 31, 1939, and automatically terminating March 31, 1940, which the Commission, with the cooperation of other interested Federal departments, has effected with the Department of Transport of Canada.

The new plan modifies the regional allocation of radio frequencies for voluntary use by ship and shore radiotelephone stations in the Great Lakes, according to Commissioner Thad H. Brown, Commissioner in charge of the Great Lakes and Inland Waters Survey. In commenting on the new arrangement, Commissioner Brown said:

"The plan is expected to facilitate the exchange of safety communication during the 1939 season of navigation on the Great Lakes, and thereby aid in a determination of the usefulness of radiotelephony in the promotion of safety of navigation. This matter is receiving careful attention and study in the Great Lakes and Inland Waters Survey."

For some years Canada and the United States have provided for standardized frequencies and definite operating procedure to be used in handling radiotelegraph safety and distress communications by ship stations and radio stations on shore. These frequencies and operating procedures are in agreement with the general radio regulations of the International Telecommunication Convention which are now in force on both the lakes and the high seas. Vessels either voluntarily equipped with radiotelegraph or compulsorily equipped in compliance with the United States Ship Act of 1912, have adequate provisions in the way of frequencies and operating procedures. For many years, for example, 410 kilocycles has been designated, by agreement with Canada, as a common safety and distress frequency for radiotelegraph stations in the maritime mobile service on the Great Lakes. Additional frequencies in the band 400-485 kilocycles have been provided to take care of other communications by radiotelegraph.

Until now there has been no comparable agreement in the matter of frequencies and operating procedures for the use of radiotelephony in the Great Lakes region for safety and distress purposes. Because of this fact it has seldom been practicable for American and Canadian vessels to communicate by radiotelephony with each other, with commercial shore stations of the other country, or with U. S. Coast Guard units.

The action taken by the Commission was in response to a resolution sent to the Hon. C. D. Howe, Minister of Transport of Canada, and Commissioner Brown, by the American and Canadian vessel owners at the time of the joint meeting on January 9, 1939, at Montreal, Canada. The resolution pointed out the lack of a

common calling or distress frequency covering the lakes as a whole, which is available to both United States and Canadian vessels and shore stations. Only in this way, it was held, could there be assurance that a ship of either flag equipped with radiotelephone would be in a position to meet fundamental distress requirements. Furthermore, navigational information, it was claimed, could be readily interchanged which would serve as an important preventive of marine casualties and disasters.

In response to this resolution, informal discussions were held by representatives of the Department of Transport of Canada, Federal Communications Commission, U. S. Coast Guard, and interested radio station licensees and vessel owners.

The present plan, which is an outgrowth of these meetings, provides for the use of the frequency 2182 kilocycles by ships of both countries at all points in the Great Lakes area as a calling frequency to initiate communication and to transmit messages involving safety of life or property. To insure an effective use of this frequency for safety purposes, appropriate restrictions are placed upon its use and in no case shall any one exchange of communications on this frequency exceed five minutes' duration. Contact having been made on the frequency 2182 kilocycles, communication from ship station to shore station will be conducted on the frequency 2118 kilocycles, from shore station to ship station on 2514 kilocycles and from ship to ship on 2738 kilocycles.

The Commission has promulgated appropriate rules and regulations applicable to stations under the Commission's jurisdiction in order to carry out the provisions of the new plan. These rules and regulations provide for the issuance of necessary temporary instruments of authorization for all ship and shore radiotelephone licensees who voluntarily indicate their desire to employ the provisions of the plan. All installations or modifications of existing equipment will be wholly voluntary, and will afford an opportunity to the ship owner of demonstrating the practicability of radiotelephony for safety purposes on the Great Lakes.

It is reported that the U. S. Coast Guard will install 15 radiotelephone stations which will operate on the designated safety frequency 2182 kilocycles at 15 strategic points on the Great Lakes.

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A new Bahamas broadcasting station at Nassau was recently opened by his Excellency the Governor. William S. Paley, President of the Columbia Broadcasting System of America, was among those present. Working on the medium waveband under the call sign ZNS, with a power of 1 KW, the new transmitter superseded an old installation that is now to be modified for use on the short waves. It is intended that, ultimately, the two transmitters shall radiate simultaneously.

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CBS ENGINEER DEMONSTRATES REVOLUTIONARY DEVICE

A system that may change the whole conception of modern radio studio design, making it possible for engineers to create over the home receiver the quality of musical tone heard in a concert hall, even though the performers play in a small "dead" studio, was demonstrated in New York this week.

Designed by Dr. Peter C. Goldmark, Television Research Engineer of the Columbia Broadcasting System, the device received its first demonstration before several hundred members and guests of the Institute of Radio Engineers at the CBS playhouse, the New York Times reported.

Dr. Goldmark explained in his lecture, which accompanied the demonstration, that the system was designed primarily for the benefit of home radios. The device is to be incorporated in the studio control room; nothing need be added to the home receiver, he said.

Picking up several programs from CBS studios at 485 Madison Avenue, studios of average size but much smaller than a full-size concert hall, Dr. Goldmark, his assistant, Paul S. Hendricks, and others, first let the assemblage hear a normal "high-quality" type of broadcast presentation. He then switched on the synthetic reverberation machine. As he turned a knob to increase this effect, singers, orchestra and speakers on the program seemed to step out on the stage. The sound seemed not to come from the loud speaker, but from the whole stage.

The reverberator is a maze of switches, coils, relays and vacuum tubes. Inside it is a wheel or disk twenty inches in diameter, revolving 400 times a minute. On the cylindrical outer edge of the disk is painted a phosphorescent material. When the wheel turns the light of a special lamp plays on this material. Actuated by pulsations of tone from the sound channel, the lamp's "light" throbs in exact relation to the music.

This "paints" an exact "picture" of the tone on the wheel's rim during each revolution. Two stationary photo-electric cells, placed one-third and two-thirds of the way around the disk from the exciter lamp, pick up the tone after it has been retarded varying amounts of time on the wheel's rim. This is fed back into the circuit through an amplifying channel. Each time the wheel rotates a new set of "reverberations" is introduced.

The resultant tonal delay simulates the time required for a sound to advance from an instrument or instruments on the stage, strike the walls of a large enclosure, and return to the ears of the listener or to a pick-up microphone for broadcasting.

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 ::: TRADE NOTES :::
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A small, low-cost Multi-Range Wave Trap which is said to set new high standards in protection of radio receivers against unwanted interference or inadequate reception of certain stations has just been announced by the RCA Manufacturing Company. The new unit has an average attenuation of 40 to 1 over the frequency range of 45-2100 kilocycles.

A New York manufacturer of receiving sets for use both in automobiles and in homes, has entered into stipulations with the Federal Trade Commission to discontinue misleading representations in advertising. Pierce-Airo, Inc., 436 Lafayette St., New York City, manufacturing and selling DeWald and Motortone radio sets, agreed to cease the use in printed matter of the words "Pierce-Airo", either alone or in connection with an arrow, or of any other phonetic or correct spelling of the words "Pierce Arrow" so as to mislead purchasers of its sets into believing that they have been made by Pierce Arrow Motor Car Company, Buffalo, when this is not a fact. The respondent also agreed to cease misstating the number of functioning tubes in its sets.

Because it is felt that it has achieved its objective, the Magic Key of RCA will soon be retired from the air by the Radio Corporation of America, and plans will be considered for a new type of program. The Magic Key, which has been heard continuously for three and a half years over one of the largest commercial NBC hookups, was designed as part of an institutional advertising campaign to familiarize the public with the relationship among the various companies making up the RCA family.

A meeting of the RMA Board of Directors will be held April 26th at the Roosevelt Hotel in New York City. President A. S. Wells has arranged for the Directors' meeting just prior to the opening on the following Sunday, April 30, of the New York World's Fair, and the beginning of regular television programs in the New York area. At the same time, either on April 26th or the preceding day, a general conference of RMA members on export sales promotion will be held. The export conference, to consider competition in foreign markets, is being arranged by Chairman S. T. Thompson of the RMA Export Committee.

One of the annual merit awards conferred by the National Institute of Immigrant Welfare will go to David Sarnoff, President of the Radio Corporation of America. The awards, given to citizens of foreign birth who have made outstanding contributions to American life in science, art, education and public affairs, will be given at the Institute's fourth dinner April 19, in the Biltmore Hotel, New York City

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South American reception of General Electric's short-wave W2XAD promises to be considerably improved by the use of a new antenna developed by Dr. E.F.W. Alexanderson, consulting engineer of the General Electric Company. Known as the new Alexanderson panel antenna, the equipment is expected practically to double signal strength by decreasing its vertical depth, thereby keeping the signal path nearer the earth's horizon. By concentrating the energy, the new antenna should also result in a noticeable reduction in fading of signal strength, according to General Electric engineers. Two 300-foot towers have been erected at South Schenectady, site of General Electric's radio transmitter laboratory, for use with the new system.

A Philco television caravan is making a cross-country tour of the United States in what is said to be the first attempt to acquaint the country at large with both television receiving and broadcasting at first-hand. This travelling demonstration of television is made possible through the development by engineers of the Philco Radio & Television Corp. of a new portable television transmitter which stands less than six feet high, is completely mobile and requires only a plug-in to a nearby electric outlet for its operation either indoors or outdoors.

Treasury collections in February 1939, of the Federal 5 percent excise tax on radio and phonograph apparatus increased 55 percent over February, 1938. The radio tax collections last February were \$404,201.56 against \$260,580.34 in February, 1938. Excise tax collections on mechanical refrigerators decreased, being \$416,887.88 last February against \$618,664.12 in February, 1938.

President Roosevelt, delivering the opening address at the New York World's Fair of 1939 on April 30, will be the subject of the first program of the first regular high-definition television service in the United States, according to Lenox R. Lohr, President of the National Broadcasting Co. The World's Fair opening, which also will signal the launching of the new television industry in the United States, will be relayed from the fair grounds at Flushing Meadows by the NBC mobile television station. Both pictures and their associated sounds will be broadcast from the main NBC transmitter in the Empire State tower. The televised image of the President will be visible on receivers in the Metropolitan area within a radius of about fifty-five miles in all directions from the Empire State tower transmitter, according to NBC television officials.

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BAIRD TO INSTALL TELEVISION IN N. Y. MOVIES

Negotiations are under way to equip two or three New York motion picture theatres with Baird television apparatus by May 15, according to Arthur A. Lee, Vice-President and General Manager of Gaumont-British Corporation of America, which owns a controlling interest in Baird Television. The television pictures, which will be projected on a twelve by fifteen foot screen, will be a feature of the regular motion-picture entertainment and will at first be limited to sports events, such as prize fights or baseball games, the New York Times reports.

Negotiations are also under way with one of the broadcasting networks for daily pick-ups transmitted either from films or actual studio presentations, providing thirty-minute television shows in the motion-picture theatres.

A staff of engineers will arrive in New York by May 1st to make installations which will necessitate only a slight sacrifice in the seating space. The television equipment may be installed more simply and even more cheaply than sound apparatus for talking pictures, according to Mr. Lee.

The Baird system uses a projector which must be near the screen, and will cause the removal of a few rows of front seats.

Television experiments in several London theatres owned by Gaumont have been successful, a light-weight championship prize fight and the recent televiews of the Oxford-Cambridge boat races having encouraged the Gaumont officials to equip about half of their 300 London theatres with Baird television apparatus, Mr. Lee said.

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LEGISLATION WOULD CUT TREES TO AID AUTO RADIOS

Electric power lines would be moved and trees on rural highways cut down to prevent interference with radio reception in automobiles, under the terms of a unique bill introduced in the South Carolina Legislature by Representative Herbert W. Smoak.

Power lines on rural highways, under the bill favoring automobile-radio, would be hereafter placed at such distance from the public highways as not to materially interfere with auto-radio reception. Power lines heretofore constructed would be moved, under a five year removal program, and trees cut down if authorized by owners.

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CBS AND NBC BILLINGS INCREASE OVER 1938

This week - the first week in April, 1939 - shows a 16.5% gain in CBS volume over the same period a year ago, with Columbia clients increased from 44 to 47.

This sharp rise follows a March, 1939, volume of \$2,925,684, representing the second largest gross for any month in CBS history, topped only by the record \$3,034,317 set in March, 1938. By far the best month this year, CBS March billings top the month before by a full 15.1%. First quarter for 1939 adds up to \$8,141,283.

Showing an increase for the sixteenth successive month, gross expenditures by advertisers on the NBC networks hit an all-time high in March when they reach \$4,170,852. With a total of \$3,132,832, expenditures in March on the Red Network were the highest on a single network in the history of radio.

Expenditures on both networks were up 9.6 percent over the March, 1938, figure of \$3,806,831. Previous highs on the NBC networks were reported for October, 1938, with a total of \$3,773,964; November, 1938, when the total reached \$3,898,919, and January, 1939, with a total of \$4,033,900.

The first quarter total for both networks, an all-time high, was \$11,953,447, an increase of 7.7 percent over the total for the first three months in 1938.

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NEW LIGHTWEIGHT RADIO FOR AIRCRAFT DEVELOPED

A remarkably lightweight and compact radio set, probably the lightest ever produced for aircraft, has been designed by Imperial Airways and is now being tested on their Empire routes, according to a report to the Department of Commerce from the office of the American Commercial Attache at London.

The set may possibly be carried as an auxiliary to the standard radio equipment on the Atlantic route this Summer. It may also be adopted for a similar purpose on the long-distance Empire service and for use in control launches. Although of small proportions and conveniently self-contained, the set incorporates all the features required to meet communication requirements on the Empire air routes, the report said.

The set combines long and short wave on the same transmitter and the change from each system of transmission is effected instantaneous by means of a single rotary switch. The wave range is between 5 and 1,000 meters, and is crystal controlled spot wave on any required frequency. The total weight of the set is 43 pounds, according to the report.

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