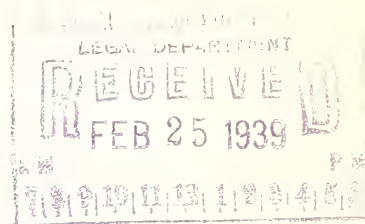


# HEINL RADIO BUSINESS LETTER

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## McNINCH-WHEELER BILL DUE FOR SEVERE OVERHAULING

Chances that the seven-man Federal Communications Commission will be replaced by a three-man agency were growing slimmer this week as Senator Wallace White (R.), of Maine, offered a counter proposal to the McNinch-Wheeler bill. Senator White's measure, which has the backing of the broadcasting industry, would establish a 11-man Commission with regulation of broadcasting and communications common carriers strictly separated.

Even Senator Wheeler (D.), of Montana, appeared to have lost much of his enthusiasm for the McNinch plan after listening to a delegation from the National Association of Broadcasters. While he formerly promised to rush the bill through the Senate, he has not yet scheduled hearings or appointed a sub-committee to conduct them.

Unconfirmed rumors, moreover, were that there is a rift growing between Senator Wheeler and Chairman McNinch. One of the causes, it was said, was that Mr. McNinch's recent Baltimore speech in which he took full credit for the Wheeler legislative proposal. Another was that Senator Wheeler feared his tie-up with an alleged former member of the Ku Klux Klan was doing him no good back home.

An indication that the Senate is watching developments with regard to the FCC with keen interest was seen in the questioning of Senator White when he explained his bill on the Senate floor this week.

Senator Logan (D.), of Kentucky, stated his approval of the 11-man two-division plan offered by Senator White after listening to the explanation, and Senator Austin (R.), of Vermont, showed a keen interest in it.

Broadcasters who are doing some effective lobbying against the McNinch bill on Capitol Hill believe that Senator Wheeler will agree to a five-man Commission as a compromise with a separate division handling broadcasting matters exclusively. Senator White, on the other hand, says he would have no objection to keeping the FCC at seven members providing the division control were adopted.

Explaining his bill, Senator White stated on the Senate floor:

"The bill deals primarily with the administrative machinery of the Commission, and suggests certain procedural changes from the present practice. My principal purpose is to present to the Congress alternatives to the recommendations made

by Mr. McNinch, of the Communications Commission, and embodied in Senate Bill 1268, introduced by the Chairman of the Interstate Commerce Committee of the Senate. I recognize infirmities in the draft I offer; but the substantive provisions, I believe, are sound and should be considered by the committee whenever Senate bill 1268 is set for hearing and for study.

"Sections 1 to 6, inclusive, basically change the present administrative set-up and functions of the Commission. Experience to date has proved that these changes, or substantially these modifications, are necessary if the Commission is to function properly as a regulatory body, and is to give to the Communications Act of 1934 the type and quality of administration and regulatory control intended by the Congress when it enacted the 1934 Act.

"Summarized, the bill proposes in the first six sections a Commission composed of 11 members, separated into two permanent divisions of five members each, not including the Chairman.

Asked by Senator Austin why he chose the number 11, Senator White replied:

"I do not regard it as imperative that the number of the Commission should be 11. I do not regard it as absolutely necessary that the divisions should be 5 members each. However, I do think there should be a break-down into divisions either 2 or 3 divisions. There must be a sufficient number of Commissioners so that each division shall have such a number of members that matters may be studied and may have the combined judgment of members rather than the judgment of an individual member. I do think it imperative, whether the number be 7 or 11, or whether the divisions be of 3 or 5, that there should be a statutory break-down, and statutory jurisdiction in the divisions.

Senator Logan asked: "Am I to understand that each division will have authority to act upon questions without taking them before the full Commission?"

"That is generally what I propose", Said Senator White. "I shall enlarge on that question a little as I go along."

"It would be better then", Senator Logan continued, "to have two divisions, say, of five each, and a Chairman, so that each division, if the Chairman sat with each, would constitute a majority of the Commission, and if there were a disagreement the question could be taken before the full Commission."

"My judgment is that the set-up I am proposing, of 11 members, with divisions of 5 is a sound set-up", Senator White replied.

"I think so too", Senator Logan added.

Continuing, Senator White explained:



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"Under the plan, the full Commission would have power and authority to adopt and promulgate rules and regulations of general application authorized by the Act, including procedural rules and regulations for the Commission and each division thereof. It would have plenary authority over amateur services, emergency services, over all matters arising under the Ship Act of 1937, so-called, the qualifications and licensing of operators, the personnel of the Commission and of the divisions, the assignment of the bands of frequencies to the various radio services, and many other subjects over which the full Commission now has authority. The judicial and quasi-judicial functions of the Commission would, however, be vested in the two divisions. These include jurisdiction over the important and controversial subjects now inadequately dealt with by the whole Commission because of well-recognized conditions.

"The jurisdiction to hear and determine all cases relating to broadcasting, television, facsimile, and similar communications intended for public reception is proposed to be vested in a Division of Private Communications. This plan is a recognition of the fundamental differences in the types of communications involved and the nature of the questions presented thereby. It also provides a method for obtaining consideration of these different types of communication by persons who are selected because of their familiarity with the subjects, and who will be able to devote their time and attention to them without interruption or interference occasioned by the demands of basically different problems.

"Under the plan proposed, the Chairman would be the executive officer and the coordinator of all work of the Commission, participating fully in all matters within the jurisdiction of the Commission, except the determination and the decision of those contested matters made the exclusive responsibility of the divisions. Again, experience has amply demonstrated that a Chairman cannot devote the time and attention necessary to a proper handling and disposition of these technical and contested questions and at the same time efficiently discharge the other duties which unavoidably fall upon a Chairman and those which are made in part his obligation by the present proposed amendments.

"The terms provided originally for the Commissioners are of 2, 3, 4, 5, and 6 years, with the appointments to be made in each case to a particular division. Thereafter, the appointments are to be for terms of 6 years. The original term of the Chairman is made 2 years, and thereafter his term likewise is to be 6 years.

"I believe such a statutory break-down of the Commission would bring about an essential separation of functions, would contribute to a sounder knowledge on the part of the Commissioners of the communications problems committed to them, would make for orderly procedure and harmony of decision, and would speed up the disposition of cases before the Commission and the divisions thereof.

"Sections 7, 8, 9, and 15 of the bill would make the provisions of present law, permitting the merger and consolidation of telephone companies, applicable to all common carriers of communications. The condition of our common-carrier communication companies, and particularly the situation with respect to international communications, make it wise that this authority of law should exist. I have included the provisions because I believe



it imperative that this subject should be studied without further delay. Unless some solution of the difficulties of our communication carriers is found - and again I stress the significance of communications in the foreign field - disastrous consequences are likely to result to American services.

"Sections 10 and 11 of the bill are designed to eliminate certain obsolete provisions of the present law, and to establish a minimum term of 1 year for all licenses granted by the Commission.

"Sections 12, 13 and 14 are designed to remove procedural difficulties which have arisen under the present law.

"Sections 16, 17 and 18 deal with broadcasts of a political nature, or those involving the discussion of controversial public questions. Section 315 of the present law has been a subject of controversy. Some would construe it to impose upon broadcasters the duty of accepting and broadcasting slanderous or libelous material when submitted by a candidate for public office, even though the station might thereby become liable for damages or in criminal proceedings under the laws of particular States. I have sought to clarify this situation by deleting some language now appearing in Section 315, and by the addition of a new section which provides that although no licensee shall have the power to censor, he shall not be required to broadcast any material submitted by a candidate for public office which is slanderous or libelous, or which may subject the station to an action for damages or to penalty under local, State, or Federal law. The proposed section further provides that the licensee shall have the right to demand and receive a complete and accurate copy of the material to be broadcast, so that it may be examined and made to conform to the requirements of the section.

"Section 17 proposed an entirely new section, designed to require the identification of the speaker in the case of broadcasts dealing with public or political questions. This has been required in the case of any commercial use of a station. The proposed section simply carries this principle of identification further, and makes it applicable to those intending to discuss political or public questions.

"The other provisions of the bill are technical, dealing with procedural steps before the Commission and with court procedure.

"I emphasize that without giving painstaking care to its draft, I have introduced this bill in the hope that the legislative proposals contained therein may receive consideration by the Interstate Commerce Committee of the Senate when Senate Bill 1268 is taken up for study. Other questions of policy ought to be surveyed and the congressional purpose with respect to them declared. Some of them are highly controversial; and it has long seemed to me that investigation and study should precede any attempt to draft legislation.

"Heretofore the Senate has been reluctant to authorize that examination of the problems which in all good sense should be the basis of legislative action. I hope a different attitude may now be manifest, and that some of the communication problems which vex us will have the study and thought of the Senate and its appropriate committee."

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## WHITE BILL WOULD CURB LIBEL OVER RADIO

Two provisions of the White Bill (S-1520) for amending the Communications Act are designed to save broadcasters from becoming involved in unintentional libel or slander suits because of utterances made by political speakers whose addresses they may not censor.

While retaining the prohibition against censorship, the proposed Act would require that copies of addresses be delivered to a station in advance of presentation and would permit broadcasters to delete slanderous or libelous matter.

Another provision would require identification of every public speaker, with the group or person whom he represents, before he is allowed to speak on the air.

The provisions, Sections 17 and 18 respectively, follow:

"Sec. 17. Add to said title III the following new section:

"'Sec. 330. No licensee of any radio broadcasting station shall permit the use of such station for the discussion of any public or political question whether local, State or national in its scope and application, unless the person or persons using such station shall, prior to such use, disclose in writing and deliver to the licensee the name or names of the person or persons or organization upon whose instance or behalf such broadcast is to be made or conducted. Upon the making of any such broadcast the name of the speaker or speakers using the station, together with the other information required by this section, shall be announced both at the beginning and at the end of such broadcast. Public officers, speaking as such, whether local, State, or national, and whether elective or appointive, shall be relieved of compliance with the foregoing provisions, but in all cases the licensee shall cause an announcement to be made both at the beginning and at the end of the broadcast, stating the name of the speaker, the office held by him, whether such office is elective or appointive, and by what political unit or public officer such power of election or appointment is exercised. Where more than one broadcasting station or a network of such stations is used as herein provided, the requirements of this section will be met by compliance therewith at the station which originates such broadcast.'

"Sec. 18. Add to title III the following new section:

"'Sec. 331. No licensee of any radio broadcast station shall have the power to censor, alter, or in any way affect or control the political or partisan trend of any material broadcast under the provisions of sections 330 and 315 hereof: Provided, however, That no licensee shall be required to broadcast any material which is slanderous or libelous or which might subject the licensee or its station to any action for damages or to a penalty or forfeiture under any local, State, or Federal law or regulation. In



all such cases the licensee shall have the right to demand and receive a complete and accurate copy of the material to be broadcast a sufficient time in advance of its intended use to permit an examination thereof and the deletion therefrom of any material necessary to conform the same to the requirements of this section, and the Commission shall make rules and regulations to carry this provision into effect."

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## 51,000 LICENSED RADIO AMATEURS, FCC REVEALS

The number of licensed amateur radio operators in the United States had passed the 50,000 mark, the exact number being slightly over 51,000, the Federal Communications Commission disclosed this week. The total number of licensed amateur stations is slightly greater than this, it was pointed out, as several operators own more than one station.

While the importance of amateur stations and operators has been publicly demonstrated repeatedly in times of emergencies such as floods, storms, ship-wrecks and other disasters, the value of this small army of men and women to the Navy and Army is little understood. A large number of these amateur stations and operators are affiliated with the Naval Communications Reserve and the Army Amateur Reserve System. These organizations offer training which provides practice drills and instruction to enable amateurs to develop accuracy and speed in communication as well as to improve their technique in the operation of amateur stations.

In making public the figures on the number of amateur operators and stations in this country, the Commission pointed out that there are more than a thousand "shut-in" operators. Often these people find their chief contact with the outside world in their radio telephone and telegraph talks with other amateur operators far away. They include not only cripples and the bed-ridden but a number of blind persons as well. The blind operators, estimated to number more than a hundred, frequently take their license tests in Braille. The tests are sent to the Library of Congress where they are translated and returned to the Commission for rating. The blind operators take the same speed test as other amateurs, demonstrating their ability to send and receive international Morse code signals at the rate of thirteen words per minute.

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The Federal Communications Commission (Brown and Walker, Commissioners, dissenting, McNinch, Chairman, and Payne, Commissioner, not participating), this week denied the application of Food Terminal Broadcasting Company, Cleveland, Ohio.

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## FCC SPLIT IN TEXAS FREQUENCY FIGHT

The Federal Communications Commission, (Chairman McNinch and Commissioners Brown and Sykes dissenting), announced this week a denial of the petitions for rehearing filed by the West Texas Broadcasting Company, Wichita Falls, Texas, the Journal Company (WTMJ), Milwaukee, Wisconsin, the motion for rehearing filed by the Tri-State Broadcasting System, Inc. (KTBS), Shreveport, La., and granted the motion of Faith Broadcasting Company, Inc., Wichita Falls, Texas, to withdraw its application.

This matter involves the applications of West Texas Broadcasting Company, the Wichita Broadcasting Company, and Faith Broadcasting Company, Inc., to establish a new station in Wichita Falls, Texas.

On June 28, 1938, the Commission denied the application of West Texas Broadcasting Company for a construction permit to operate on 1380 kc., 1 KW, unlimited time; the application of Faith Broadcasting Company, Inc., to operate on 1380 kc., 1 KW, 5 KW-LS, unlimited time, and granted the application of Wichita Broadcasting Company to establish a new station using 620 kc., 250 watts, 1 KW-LS, unlimited time. The applications of C. C. Baxter (KFPL), Dublin, Texas, for voluntary assignment of license to WFTX, Inc., and the application of WFTX, Inc., (KFPL), Wichita Falls, to change frequency from 1310 to 1500 kc., and power from 100 watts (CP 250 watts) to 100 watts, 250 watts-LS, were dismissed with prejudice.

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## FCC ENGINEERS NOTE COAXIAL CABLE POSSIBILITIES

Tests which are in progress on the experimental coaxial cable installation between New York and Philadelphia have demonstrated the feasibility of transmitting 480 simultaneous telephone conversations through a single small cable, according to reports to the Federal Communications Commission.

The same small cable, no bigger around than a broom handle, may be used for transmission of a television program, in lieu of the telephone conversations, although thus far at least the pictures are inferior to those produced by the most modern television equipment.

Alternatively, any one or more of the 480 telephone channels may be replaced by a channel for facsimile or wirephoto. By using two or three of the telephone channels, a high fidelity circuit for radiobroadcast purposes may be obtained, conveying a program from the point of origin, or of "pick-up", to the point where it goes on the air.

The theoretical possibilities go much further, engineers of the Commission pointed out. As it has been proved possible to carry twelve telegraph messages on a single telephone channel, the coaxial cable, with its 480 channels, might transmit more than 5,000 telegrams simultaneously. It was emphasized, however, that many problems remain to be solved, and many adjustments to be made, before such operation could be attempted. Even then it would have to be studied in the light of its effects upon other parts of the nation's systems of communications.

The present cable system is being operated under an experimental authorization granted by the Commission in 1936 to the American Telephone & Telegraph Company and the New York Telephone Company. The cable, 94.5 miles long, was completed late in that year. Since then an extensive program of field tests and experiments has been carried out by the Bell Telephone Laboratories.

This novel medium for the transmission of communications was authorized for the purpose of broadband transmission. It utilizes the principle of transmitting a large number of different groups of electrical impulses of different frequencies over a single pair of conductors. The elaborate and ingenious equipment which is used in conjunction with the cable "sorts out" the frequencies, so that the voices transmitted on each frequency are as distinct as if they traveled over a pair of conductors all by themselves.

An application is pending for authorization to build a similar coaxial cable installation, twice as long, for commercial use. This application has not yet been acted upon by the Commission. The proposed system would be installed between Stevens Point, Wisconsin, and Minneapolis, Minnesota, a distance of 195 miles. It would be installed and operated by the American Telephone and Telegraph Company and the Wisconsin Telephone Company. It would utilize four coaxial units instead of the two employed in the experimental installation, but the second pair would be for "stand-by", or reserve, use.

The New York-Philadelphia cable, has an outer covering of lead  $7/8$  inches in diameter, and contains two coaxial units, which are a pair of copper tubes, with a wire centrally located in each tube. Each of these tubes is approximately the size of an ordinary lead pencil, while the wire within is about the size of a pencil lead, which is held centrally by thin slotted discs of hard rubber, equally spaced along the wire.

Although the coaxial system receives its name from the line structure, greater novelty resides in the repeaters and terminal apparatus. This broadband system permits the use of a much larger frequency band width and a larger number of channels over a single pair of conductors than has been possible heretofore. One of the units is used for transmission in one direction, while the other unit is used for transmission in the opposite direction.



An "ordinary" telephone channel is provided by a pair of wires, which handles conversations in both directions. In connecting such channels to the coaxial system at New York, the first step is to split the outgoing talk from the incoming. By "modulating" apparatus, the outgoing talk is lifted to a new position on the frequency scale, just as a broadcast program is lifted to a position in the radio range. Eleven other outgoing channels from different subscribers are placed one after another alongside the first - the group occupying the range from 60,000 to 108,000 cycles. At the same time, other groups of twelve channels each are formed, and each group is lifted as a unit to a new place on the scale. Eventually the range from 60,000 to 1,020,000 cycles is filled with twenty groups of twelve channels each. The entire range is then transmitted over one of the coaxial "pipes" to Philadelphia, where it is broken down into individual channels for transmission to the proper listener's ear. The same process is carried out in transmitting the telephone channels from Philadelphia to New York over the other coaxial unit.

Along the route are installed special unattended amplifiers, or repeaters, which receive their power over the inner wires of the two coaxial units. These repeaters were initially spaced at ten mile intervals, and were capable of transmitting a band width of 1,000,000 cycles. Over this system, with the ten mile repeater spacing, it was found possible to transmit simultaneously 240 "two way" telephone conversations. As many messages were capable of being transmitted through this pair of "tubes" as are now transmitted over an ordinary toll cable the size of a man's arm.

While tests were being made on the New York-Philadelphia cable, the Bell Telephone Laboratories was developing a repeater capable of amplifying a band width of 2,000,000 cycles. The 1,000,000 cycle repeaters were removed and the 2,000,000 cycle repeaters were installed at five mile intervals. From tests made with the new repeaters, it was found possible to accommodate 480 high grade telephone channels.

This 2,000,000 cycle system will provide for television currents corresponding to about 350 line pictures. This is a superior grain to the 240 line images previously transmitter; nevertheless, it is still inferior to the grain produced by the most modern television equipment (441 lines or better).

Tests were also made on the system with the circuit channels looped back and forth at the terminals to give a total telephone circuit length of 3,800 miles, equivalent in distance to transmission from coast to coast. The quality of telephone transmission was satisfactory. In this connection, the conversations in each direction passed through no less than 70 stages of frequency transformation.

Television was transmitted over the cable, in the form of sound motion pictures, from New York to Philadelphia. For this purpose the telephone terminal equipment was removed from the system.

The demonstration showed, for the first time, the unique and economical utilization for television currents of the frequency band of a long coaxial cable. Instead of transmitting the television currents by the double side-band method common to radio



broadcasting, a method for single side-band transmission was developed, thus utilizing the frequency range to the fullest capacity.

This country has led the way in the development of the coaxial cable, the FCC engineers stated. American equipment is considered to be unexcelled. The installation and experiments here have prompted European telephone administrations to adopt this system recently.

A four core coaxial cable network is being constructed in England. One cable between London and Birmingham, containing 80 telephone channels, has been in service for several months. Another is being constructed between London and New Castle.

A coaxial system is under construction in France. One Cable will extend from Paris to Bordeaux, while another will replace in large part the Paris-London cable.

Another European coaxial system was placed in service between Leipzig and Berlin, Germany, last year. Capable of transmitting 30 telephone conversations simultaneously, it can also be utilized to transmit television programs of low grade definition.

The idea of the coaxial form of transmission line is relatively old, and was studied theoretically and mathematically at various times during the latter part of the last century, going back to the work of Rayleigh, Heaviside, and J. J. Thompson.

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#### FCC RULES ON PRESS STATIONS AMENDED

The Federal Communications Commission this week amended Rules 232 and 241(a) to read as follows, effective March 1, 1939:

"Rule 232. The term 'fixed public press' service means a radio communication service consisting of transmissions from a fixed station, open to public correspondence, of news items, advertising, or other material relating to or intended for publication by press agencies, newspapers, or for public dissemination. These transmissions may be directed to one or more fixed points, specifically named in the station license, or to unnamed points in accordance with the provisions of Rule 241(a).

"Rule 241(a). Upon application being made, the Commission may grant a license, or a modification of license, for fixed public press service to authorize the use of the assigned frequency, or frequencies, for transmission without coordinated reception of addressed messages to one or more fixed points, in accordance with the provisions of Rule 232. The points to which such transmission is authorized need not be named either generally or specifically in the license. After such application is made and granted, specific authorization for transmission to each new point shall be contingent upon (a) the licensee's immediate notification to the Commission of the first transmission to said point and the location of the station or stations from which such transmission is made,

and shall continue until the expiration date of the station license or licenses unless, within thirth (30) days, the licensee is otherwise notified by the Commission; (b) effective tariffs covering transmission to each new point authorized by this rule are currently on file with the Commission. After thirty (30) days from the commencement of such transmission the Commission shall be notified on the first day of each calendar month the frequencies used for the transmission of messages authorized by this rule and the points of communication to which each frequency was utilized. In addition, the licensee shall within such 30-day period inform the Commission of the name of the person operating the receiving end of the circuit and the number of subscribers at that point. In addition, immediate notification shall be made of the deletion of any point which has been previously authorized by the provisions of this rule, and any change in identity of the person operating the receiving end of the circuit, and any change in the number of subscribers at that point. Nothing herein contained shall be construed as a waiver of any provision of law or regulation requiring the filing with the Commission by the carrier of copies of contracts in relation to traffic, or other contracts."

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#### CANADIAN RADIO SALES SHOW DECLINE IN 1939

Sales of radio receiving sets to Canadian dealers during 1938 numbered 211,470 units valued at \$17,119,850 compared with 232,343 units valued at \$20,039,146 in 1937, according to a report to the Department of Commerce from the office of the American Commercial Attache at Ottawa.

Inventories of Canadian companies reporting to the Radio Manufacturers' Association of Canada as of December 31, 1938, totaled 50,244 units as compared with 62,291 units on hand at the end of November and 58,799 units at the end of December, 1937, the report stated.

Projected production from January 1 to March 31, 1939, is scheduled at 19,799 units, including 14,199 alternating current chassis, 4,150 battery sets, and 1,450 automobile sets, according to the report.

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The U. S. Commerce Department reports that the number of radio licenses in force in Sweden has recently passed the 1,200,000 mark, thus giving this country the highest number of wireless sets per capita in the world, with the single exception of Denmark.

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