

Ronald Reagan Presidential Library Digital Library Collections

This is a PDF of a folder from our textual collections.

Collection: Roberts, John G.: Files

Folder Title: JGR/Wick, Charles

(1 of 4)

Box: 57

To see more digitized collections visit:

<https://reaganlibrary.gov/archives/digital-library>

To see all Ronald Reagan Presidential Library inventories visit:

<https://reaganlibrary.gov/document-collection>

Contact a reference archivist at: reagan.library@nara.gov

Citation Guidelines: <https://reaganlibrary.gov/citing>

National Archives Catalogue: <https://catalog.archives.gov/>

THE WHITE HOUSE

WASHINGTON

December 23, 1983

MEMORANDUM FOR FRED F. FIELDING

FROM: JOHN G. ROBERTS *JGR*
SUBJECT: Telephone Recording Inquiry

Federal law does not prohibit an individual from recording incoming and outgoing telephone conversations to which he is a party, without advising the other party, so long as the conversation is not recorded for the purpose of committing a criminal or tortious act or "any other injurious act." Interception of wire communications is generally prohibited by 18 U.S.C. § 2511, but 18 U.S.C. § 2511(2)(d) provides that:

It shall not be unlawful under this chapter for a person not acting under color of law to intercept a wire or oral communication where such person is a party to the communication or where one of the parties to the communication has given prior consent to such interception unless such communication is intercepted for the purpose of committing any criminal or tortious act in violation of the Constitution or laws of the United States or of any State or for the purpose of committing any other injurious act.

The Federal Communications Commission requires that anyone recording a telephone conversation give warning of this fact by means of an automatic tone warning device (an intermittent beep), "Use of Recording Devices in Connection With Telephone Service," Docket 6787; 11 F.C.C. 1033 (1947); 12 F.C.C. 1005 (November 26, 1947); 12 F.C.C. 1008 (May 20, 1948). There is, however, no penalty for violation of this rule beyond the possible loss of telephone service. Indeed, the FCC recently issued a Notice of Proposed Rulemaking to rescind the rule, on the grounds that it is unenforceable and that the issue has been addressed by 18 U.S.C. § 2511 (enacted after the FCC rule). 48 F.R. 51650 (Nov. 10, 1983).

Several states, such as California and Florida, have gone beyond 18 U.S.C. § 2511 and prohibited recording of telephone communications unless both parties have consented.

The District of Columbia statute, however, is identical to federal law on this question, permitting recording by or with the consent of only one of the parties. D.C. Code 23-543(b) (3).

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON 25, D. C.

In the Matter of
USE OF RECORDING DEVICES IN CONNECTION } DOCKET No. 6787
WITH TELEPHONE SERVICE. }

ORDER

At a session of the Federal Communications Commission held at its offices in Washington, D. C. on the 26th day of November 1947:

The Commission, having under consideration the record herein, including its report made and filed herein on March 24, 1947;¹ and

It appearing that in said report it was concluded, among other things, that an engineering conference of representatives of the telephone companies, the recorder manufacturers, the State commissions, and this Commission, be held to consider the technical questions presented by the use of telephone recorders, and the installation and operation of proper automatic tone warning devices; that on the basis of such findings and recommendations as resulted from this conference, the Commission would give consideration to the adoption of engineering standards to govern the installation, use and operation of telephone recorders and automatic tone warning devices in connection with interstate and foreign message toll telephone service; and that the Commission would postpone the issuance of a final order herein until it had considered these engineering matters;

It further appearing that a public engineering conference was duly held on April 29, 1947, pursuant to the terms of the above report of the Commission, at which conference representatives of the telephone companies, the recorder manufacturers, the State commissions, and this Commission were present and participated; and that subsequent to said conference various engineering work and tests have been conducted pursuant to the conclusions formulated at said engineering conference.

It further appearing that upon consideration of the recommendations formulated at the above engineering conference, the automatic tone-warning devices contemplated by the Commission's report of March 24, 1947, should produce a signal having the following characteristics:

Number of tones.....	1
Length of each tone.....	20/100 of a second with a tolerance of plus or minus 20 percent.
Pitch of tone.....	1400 cycles per second with a tolerance of plus or minus 10 percent.
Frequency of recurrence of each signal.....	Not less than 12 seconds and not more than 15 seconds.
Level of tone.....	Equal to the average telephone talking signal strength.

It further appearing that a tone-warning signal having the above-described characteristics will provide adequate notice to all parties to a recorded telephone conversation that the conversation is being recorded; and that such signal will not unduly interrupt the telegraph conversation

¹ This report appears in 11 F. C. C.

or interfere with the recording thereof, having regard to the desirability of adequate notification of the use of a telephone recorder;

It further appearing that in the Commission's above report of March 24, 1947, it was also concluded, among other things, that the telephone companies should undertake a publicity program designed to inform telephone users generally of the use of telephone recording devices and of the import of the warning signal; that any publicity program should provide for the insertion of full page statements in telephone directories informing the telephone using public of the nature and use of recording devices and describing in detail the operation and significance of the tone warning signal; and that, in addition, the telephone companies should make available a special telephone number which, when dialed or called, would reproduce the tone warning sound;

It further appearing that objections have been filed by the American Telephone & Telegraph Co. and the United States Independent Telephone Association with respect to the above conclusions insofar as they would require telephone companies to insert full-page statements in telephone directories and to make available a special telephone number which would reproduce the tone warning sound, for the reasons that such measures would involve considerable expense and burdensome operating arrangements, particularly in the case of small telephone companies; and that therefore the kinds of publicity measures to be carried out by the telephone companies should not, at least at this time, be prescribed;

It further appearing that on August 27, 1947, the Soundsciber Corp., and on October 9, 1947, Thomas A. Edison, Inc., filed petitions with the Commission requesting the issuance of an order authorizing the use of recording devices in connection with telephone service, with or without tone-warning devices, pending the issuance of a final order herein, and also pending the actual availability of the tone-warning devices contemplated by said report of March 24, 1947, and that on September 29, 1947, Dictaphone Corp. filed a petition requesting reconsideration by the Commission of the requirement of a warning device, and, upon such reconsideration the elimination of this requirement;

It further appearing that the American Telephone & Telegraph Co. and the United States Independent Telephone Association have filed statements in opposition to the above petition of the Soundsciber Corp.;

It further appearing that a grant of the above petitions of the Soundsciber Corp., Thomas A. Edison, Inc., and Dictaphone Corp. would mean the authorization of the use of recording devices in connection with interstate and foreign message toll-telephone service without any form of notification to parties using such telephone service that telephone recording devices were being used, which would be contrary to the findings and conclusions of the Commission, as set forth in its report of March 24, 1947, herein, with respect to the need for such notification in connection with the use of telephone recording devices;

It is ordered that the Commission's report of March 24, 1947, herein, as modified by this order, is made a part hereof by reference;

It is further ordered that the use of recording devices in connection with interstate and foreign message toll telephone service is authorized, subject to the following conditions:

(1) That such use is accompanied by adequate notice to all parties to the telephone conversation that the conversation is being recorded;

(2) That such notice will be given by the use of an automatic tone-warning device, which will automatically produce a distinct signal that is repeated at regular intervals during the course of the telephone conversation when the recording device is in use; such signal to have the characteristics specified above;

(3) That such automatic tone-warning device may be furnished or maintained by anyone, whether or not a telephone company, subject to the requirement that such device have the characteristics specified above;

(4) That no recording device shall be used in connection with interstate or foreign message toll telephone service unless, at the will of the user, it can be physically connected to and disconnected from the telephone line or switched on and off;

(5) That in the case of a telephone recorder physically attached to the telephone line, the equipment necessary to make such physical connection as distinguished from the automatic tone-warning device, shall be provided, installed, and maintained by a company or other organization responsible for the furnishing of the telephone service;

It is further ordered that respondent carriers shall rescind and cancel any tariff regulations which any of them now have on file with this Commission which have the effect of barring the use of recording devices in connection with interstate and foreign telephone service under the conditions of such use specified in this order;

It is further ordered that telephone carriers subject to the Communications Act of 1934, as amended, shall, in accordance with the provisions of section 203 of the act, file tariff regulations with the Commission which provide for the use of recording devices in connection with interstate and foreign message toll-telephone service under the conditions specified in this order; and which, in addition, provide for reasonable arrangements for sales demonstrations of telephone recorders by recorder organizations;

It is further ordered that telephone carriers subject to the Communications Act of 1934, as amended, shall undertake an appropriate publicity program designed to inform telephone users generally of the use of telephone recording devices and of the import of the warning signal;

It is further ordered that the above petitions of the Soundsciber Corp., Thomas A. Edison, Inc., and Dictaphone Corp., are denied;

It is further ordered that this order shall take effect on the 15th day of January 1948.

Commissioners Webster and Jones not participating.

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION**

WASHINGTON 25, D. C.

In the Matter of
USE OF RECORDING DEVICES IN CONNECTION } DOCKET No. 6787
WITH TELEPHONE SERVICE.

ORDER

At a session of the Federal Communications Commission held at its offices in Washington, D. C., on the 20th day of May 1948:

The Commission, having under consideration its order of November 26, 1947, herein, and its order of March 25, 1948, postponing the effective date of the order of November 26, 1947, to a date to be subsequently fixed by order of the Commission; and also having under consideration the petition filed on December 19, 1947, by the Bell System Co. requesting the Commission to modify said order of November 26, 1947, so as to (1) provide that the furnishing, installation, and maintenance of the automatic tone-warning device contemplated thereby shall be the sole responsibility of the company or other organization responsible for the furnishing of the telephone service; (2) specify a greater variance in the recurrence of the signal produced by such tone warning device; and (3) extend the effective date of the order 45 days from the date of the Commission's action on said petition; the various other petitions, replies, and statements filed by the parties herein since the issuance of the above order of November 26, 1947; the public informal conference held on April 6, 1948, pursuant to the Commission's public notice of March 17, 1948, at which certain questions presented by the above petitions, replies, and statements were considered; and the statements filed on May 10, 1948, by certain of the participants in said conference;

It appearing that a requirement that the furnishing, installation, and maintenance of the above-mentioned tone-warning device shall be the responsibility of the company or other organization responsible for the furnishing of the telephone service is desirable and in the public interest, in that such requirement will insure the use and proper maintenance of the tone-warning device which will produce the signal having the characteristics described in the order of November 26, 1947, as hereinafter modified; will insure maximum uniformity in the warning signal produced by tone-warning devices throughout the country as contemplated in the final report adopted herein on March 24, 1947; will serve better to effectuate the basic purpose of the order of November 26, 1947, to offer adequate notification to the telephone-using public that their telephone conversations are being recorded; and will provide a guard against impairment of telephone service which may result from inferior tone-warning devices and improper maintenance thereof;

It further appearing that an increase in the permissible variance in the frequency of recurrence of the tone-warning signal as specified in the above order of November 26, 1947, is desirable and in the public interest

in that such increase will reduce the cost of manufacture of tone-warning devices without materially affecting the efficacy of the tone signal as an adequate warning:

It is ordered that the order of November 26, 1947, herein, is modified in the following respects:

In the third recital paragraph of said order, the fourth characteristic specified therein shall read:

Frequency of recurrence of each signal * * * not less than 12 seconds and not more than 18 seconds.

In the second decretal paragraph of said order, subparagraphs (3) and (4) thereof are revised to read as follows:

(3) That such automatic tone warning device shall be furnished, installed, and maintained by the company or other organization responsible for the furnishing of the telephone service, subject to the requirements that such device have the characteristics specified above;

(5) That in the case of a telephone recorder physically attached to the telephone line, the equipment necessary to make such physical connection, including the automatic tone-warning device, shall be provided, installed, and maintained by the company or other organization responsible for the furnishing of the telephone service.

The fourth decretal paragraph of said order is revised to read:

It is further ordered that telephone carriers subject to the Communications Act of 1934, as amended, shall, in accordance with the provisions of section 203 of the act, file tariff regulations with the Commission, to become effective on not less than 30 days' notice, but in no event to become effective later than August 2, 1948, and to provide for the use of recording devices in connection with interstate and foreign message toll-telephone service under the conditions specified in this order; and, in addition, to provide for reasonable arrangements for sales demonstrations of telephone recorders by recorder organizations.

It is further ordered that the order of November 26, 1947, as modified herein, shall take effect on the 30th day of June 1948.

Commissioner Jones dissenting; Commissioners Hyde, Webster, and Sterling not participating.

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON 25, D. C.

In the Matter of
Use of Recording Devices in Connection }
with Telephone Service } DOCKET No. 6787

March 6-24, 1947

Ray A. Brown and *John T. Quisenberry*, on behalf of the Bell System companies; *A. K. Mitchell*, on behalf of the Western Union Telegraph Co.; *D. J. F. Strother*, on behalf of the Bluefield Telephone Co; *Norman S. Case*, on behalf of the United States Independent Telephone Association; *Eliot C. Lovett*, on behalf of the Soundscriber Corp.; *Andrew G. Haley*, on behalf of Thomas A. Edison, Inc.; *Charles H. Tuttle* and *Wm. L. Hanaway*, on behalf of Dictaphone Corp.; *W. H. Taylor, Jr.*, on behalf of Frederick Hart & Co.; *Frederick G. Hamley*, on behalf of the National Association of Railroad and Utilities Commissioners and the Wisconsin Public Service Commission; and *Benedict P. Cottone*, *Harold J. Cohen* and *P. W. Valicenti*, on behalf of the Federal Communications Commission.

REPORT OF THE COMMISSION

HISTORY OF THE PROCEEDING

This proceeding was initiated by the Commission by an order dated October 31, 1945. The order provided for a general investigation into the matter of the use of recording devices in connection with interstate and foreign message toll telephone service and facilities.¹ It was recited in the order that various telephone carriers, which are subject to the Communications Act of 1934, as amended, have regulations in presently effective tariff schedules on file with the Commission, which appear to prohibit the use of recording devices in connection with interstate and foreign message toll telephone service or facilities. It was further recited that various problems are thereby presented as to the application of the Communications Act; as to the application of the above tariff regulations; and as to the effects of the use of recording devices on the privacy and quality of telephone service.

¹ It should be noted that this proceeding is concerned only with sound recorders, as distinguished from facsimile or other kinds of recording devices.

It was stated in the order of October 31, 1945, that without in any way limiting the scope of the investigation, it should include the following specific matters:

(1) The nature and extent of the need and demand for the use of recording devices in connection with interstate and foreign message toll telephone service;

(2) The extent to which the use of recording devices might impair the privacy and quality of interstate and foreign message toll telephone service;

(3) Whether suitable devices or methods can be effectuated to indicate to a user of interstate or foreign message toll telephone service or facilities that a recording device is being employed in connection with his use thereof;

(4) The lawfulness, under the Communications Act of 1934, as amended, of the above-mentioned tariff regulations;

(5) Whether the Commission should prescribe a tariff regulation governing the use of recording devices in connection with interstate and foreign message toll telephone service, and, if so, the kind of tariff regulation that should be prescribed;

(6) The relationships, if any, of the use of such recording devices to section 605 of the Communications Act of 1934;

(7) Whether any further legislation is necessary with respect to the use of recording devices in connection with telephone service and facilities;

(8) Whether recording devices are presently being used in connection with interstate and foreign message toll telephone service and facilities in violation of applicable and effective tariffs on file with this Commission.

By the order, all telephone carriers subject to the Communications Act of 1934, as amended, were made parties respondents in the proceeding. Copies of the order were required by its terms to be served, and were served, on all such carriers, and on the National Association of Railroad and Utilities Commissioners, the agency of each State having regulatory jurisdiction with respect to telephone service, the United States Independent Telephone Association, and various manufacturers of recording devices.

On November 29, 1945, the Commission, by order, authorized any State commission or other agency having regulatory jurisdiction with respect to telephone service to participate fully as a party intervenor in any proceedings herein. By other orders, the Commission granted petitions for leave to intervene in the proceeding on behalf of the National Association of Railroad and Utilities Commissioners, the

11 F. C. C.

United States Independent Telephone Association, and certain manufacturers of recording devices, namely, the Soundsciber Corp., the Dictaphone Corp., Thomas A. Edison, Inc., and Frederick Hart & Co.

The Commission's telephone committee, composed of Commissioners Walker, Wakefield, and Durr, was duly authorized to conduct the proceedings herein. Public hearings were held on January 10 and 11, 1946, before two members of this committee, Commissioners Walker and Durr. At the hearings, presentations were made by the Bell System Telephone companies, the United States Independent Telephone Association, and the intervening manufacturers of recording devices, and a brief statement of position was made on behalf of the National Association of Railroad and Utilities Commissioners and the Wisconsin Public Service Commission. Subsequent to the hearings, briefs and proposed findings of fact and conclusions of law were filed by the Bell System companies, the United States Independent Telephone Association, and the intervening manufacturers. On August 6, 1946, the Commission adopted a proposed report which was issued on August 8, 1946. In the proposed report, the Commission invited the State commissions, the telephone companies, and the recorder manufacturers to file exceptions and comments with respect thereto. Exceptions and comments were filed by the parties and by the California Railroad Commission. Oral argument was presented before the Commission *en banc* on October 18, 1946.

NATURE OF TELEPHONE RECORDING DEVICES

Devices to record telephone conversations have been the subject of experimentation for over 30 years, directed toward the achievement of more efficiency and accuracy in recording than was possible through written recordings by the parties to the conversation, or a stenographer listening in for the purpose. The workability of such devices for commercial use was largely the result of the development of the vacuum tube, which made it possible to amplify the conversation, and to equalize its strong and weak portions, so that a clear recording could be obtained. Modern telephone recorders are electronic devices for picking up electric signals from the telephone line, amplifying them through vacuum tubes, and recording them on cylinders, disks, belts, or wires. The power to operate the recorder is obtained from the electric power or light circuit on the user's premises. By such devices, an entire telephone conversation can be recorded.

In order to record a telephone conversation the recorder must, of course, be used in some manner in connection with the telephone circuit. There are three methods for accomplishing this, namely, the acoustic, the inductive, and the direct physical connection.

11 F. C. C.

The acoustic method consists essentially of placing a microphone, which is connected with a recorder, in sufficient proximity to the telephone instrument to pick up through sound waves the telephone conversation. An early form of telephone recorder employed this method.² This method has not proved very satisfactory both because of reception difficulties and interference with the use of the telephone caused by the required positioning of the acoustic equipment.

The usual methods for using a telephone recorder are by induction or direct physical connection, and there appears to be no necessity now for dealing with any other type. The inductive type can also be used by direct physical connection, and, conversely, the type that may be intended for use by a direct physical connection can also be used inductively.

In the inductive type, the signals are received by induction from the telephone instrument or line, without any direct wire connection between the recorder and the telephone equipment. This method of recording is accomplished through the use of an induction coil connected with the recorder, this coil being placed on or under a desk or table, in proximity to the telephone instrument or line to pick up energy from the inductive field of the telephone circuit. The use of this inductive method of "connection" can give satisfactory recording. Because of the negligible diversion of power from the telephone equipment, it is possible to use this method without causing any perceptible effect on the functioning of the telephone apparatus or the quality of the telephone service.

The physically connected method of recording is accomplished through a direct wire connection between the recorder and the telephone line or instrument, the connection usually being made to the bell box of the telephone instrument. This method is also satisfactory for recording telephone conversations. Again, there is no perceptible diversion of power from the telephone line. The connecting equipment can be designed to provide adequate isolation and protection so that breakdowns or maladjustments of such equipment, or of the recording device itself, will not cause interference with the operation and use of the telephone equipment.

In all three methods, a recording is made, on a wax cylinder, plastic disk, or by other means, depending upon the make of the recorder. If a written record of the recorded telephone conversation is desired, a transcription must be made, which means that some mechanism is required for playing back the recording. Thus the recording device manufacturers also make transcribing equipment. The cost of a device that

² Such a form of recorder was developed by Thomas A. Edison, Inc. in 1915, and was called the Telescribe.

will record telephone conversations ranges from about \$280 to \$950, and the transcribing machines cost about \$200 more.

DEMAND AND NEED FOR TELEPHONE RECORDING DEVICES

Telephone recording devices have been in use to some extent since 1916. A substantial demand and use for such recording devices began, however, about the start of the period of World War II.

An engineer employed by the United States Army Signal Corps testified that the Signal Corps commenced using telephone recording devices in 1938. This appears to be the first Government use of recorders. According to this testimony, the first recorders used by the Signal Corps were installed primarily to record all incoming telephone toll calls, and were controlled by the War Department switchboard operators, who would give notice to the calling party that the conversation was being recorded. However, by 1940, the demand and use for such recording devices became so great that they were installed by the Signal Corps on individual telephone instruments and notice to the calling party was discontinued.³ By 1945 the Signal Corps had made available to the War Department approximately 2,000 recording devices. After the cessation of hostilities on VJ-day, the Signal Corps continued to use the recording devices, and requests continue for additional recorders by its personnel.

Recording devices have been used by the Signal Corps for the transmission of figures and involved data which otherwise would have been handled by post or other slower communication means. An analysis of thousands of requests for recording devices received by the War Department from its personnel indicated that telephone communications were better than any other form of communication where speed is required, but without the use of recording devices, were not sufficiently accurate when details and figures are transmitted; stenographic recording of telephone communications is not sufficiently accurate, and there are only a limited number of qualified stenographers who can accurately record an ordinary telephone conversation in shorthand. In addition, stenographic recording is expensive, and unless a special monitoring equipment is employed, the quality of the telephone transmission is impaired because of the drain on the circuit when an extension telephone is used.

The Navy Department forwarded to the Commission a statement of its position and interest in this proceeding, and it requested that such

³ Under date of July 12, 1946, a War Department memorandum was issued in which it was stated:

"Although the usefulness of telephone recording machines is recognized in expediting the conduct of business, no officer or employee of the Army will make such recordings unless he informs the other party participating in the telephone conversation that a recording is being made."

statement be made part of the record herein. It appears from this statement that the Navy Department has been a very large user of recording devices since the start of World War II. At the end of 1945 there were over 1,600 recorders in use in the naval shore establishments of the continental United States. The principal Navy uses of recorders are at navy yards, supply offices, material inspection services, clothing depots, naval ordnance plants, air stations, and security units. The Navy Department states that the primary usefulness of the recording devices is in two respects:

(1) The preservation of confirmatory records of the details of contracts, purchase orders, inventories, and other important aspects of procurement and production functions; and

(2) The preservation of permanent records of operational orders and plane dispatching and landing instructions, the latter being an essential adjunct of safety in air navigation.

It is stated further that the basic authority for the use of recording devices in the Navy is derived from Navy Regulations, article 2013, which provides:

Where official business is conducted by telephone or orally, the substance of any communication or order that should be made a matter of record shall be reduced to writing without unnecessary delay.

In respect to this regulation, the statement of the Navy Department is that "recorders have proven the most efficient and economical means of attaining accuracy and completeness in complying with the direction." By way of conclusion, the Navy Department stated:

Recording devices are one of the most valuable, modern administrative aids in the conduct of the affairs of the Navy Department. They greatly increase the areas of usefulness of telephonic communication, thus promoting both efficiency and economy.

Commercial sales of telephone recording devices also increased materially during the period from 1942 to 1945, even though orders for recording devices were subject to War Production Board priorities during this period.⁴ Virtually all sales during this period were made to the Navy and War Departments, and war plants.⁵ Three large manufacturers of recording devices estimated that a total of about 19,000 of their telephone recorder instruments were in present use in the United States. Approximately 5,700 of such devices were sold to the Army and Navy Departments and the remainder to various business organizations. The wartime experience gained with telephone recording devices has resulted in an unprecedented commercial demand since VJ-day.

⁴ The War Production Board permitted the manufacture of recording devices during the war period, although it temporarily stopped the manufacture of standard dictating machines.

⁵ A witness for the Dictaphone Corp. defined "war plants" as those plants engaged in the production of war materials under contracts with the United States Government.

One manufacturer had 948 unfilled civilian orders in the United States and 296 unfilled orders in 14 foreign countries as of January 1, 1946,⁶ although for the first 11 months of 1945, it had delivered 1,362 recorders for civilian use. Even under the present somewhat restricted manufacturing conditions, this manufacturer estimated that it would deliver approximately 4,000 recorders during 1946. Another manufacturer found that the demand as of January 1, 1946, was about three times as great as it was during the war.

It was shown by the manufacturers that telephone recording devices are used for many commercial purposes and by many different types of users. Examples of the types of the commercial use of recording devices compiled by the manufacturers included recording of orders telephoned in by salesmen; technical specifications; negotiations regarding the details of purchase contracts; railroad reports of freight loadings, accidents, delays, and breakdowns; sales reports from representatives and branch officers; orders for perishable goods from fieldmen for immediate delivery; long-distance telephone conferences; news calls to newspapers and news agencies; specification changes made by naval and Army representatives; calls concerning insurance binders and adjustments by insurance representatives, and details with respect to claims and adjustments; weather reports by steamship companies; credit information by banks and other financial institutions; and messages for delivery to a person called during his absence. A partial list of users of telephone recording devices, introduced in evidence by the manufacturers, included attorneys, auditors, doctors, engineers, banks, food processors, insurance companies and brokers, hospitals, printers, manufacturers, meat packers, newspapers, railroads, bus companies, and welfare and trade associations. Bell System companies have made only two installations of recording devices, both for newspapers, the first one of these being made in 1936, and both being in operation today.

It was contended by the recorder manufacturers that use of the recording devices makes available accurate records of telephone conversations involving the transmission of complicated details and figures with all the advantages of the speed of telephony. Among other things, this enhances the usefulness of long-distance telephone service. Present commercial and industrial use of recording devices also tends to reduce the length of telephone conversation because of the elimination of the need for repetition usually required when details and figures are handled over the telephone. It appears that telephone recorders are used for all types of calls, local exchange, intrastate and interstate toll, and over-

⁶ One company sold approximately 500 recorders in England before the war, where recorders have been in use since 1934. During the period from 1930 to 1945, the same manufacturer sold 1,477 telephone recording devices in 39 foreign countries.

seas toll. It was indicated that the likelihood of the use of recorders increases with the distance covered by the call, since the cost of the call to the user tends to increase with the distance involved, and it is therefore more important that the message be received accurately on the first call.

The need for the recording of important telephone conversations involving detailed information and data has been recognized by the establishment of recording methods other than electronic recorders. The telephone conversation is, in many instances, recorded by a stenographer listening to the conversation over an extension telephone and taking shorthand notes thereof. Such type of recording is in general use in commercial business, and various Bell System companies have tariff provisions on file with State regulatory bodies, offering special equipment and facilities to facilitate the stenographer's shorthand recording of telephone conversation.⁷ In the typical Bell System tariff covering such equipment, it is stated that the apparatus is connected to the telephone line "to enable a second person to listen in (generally for the purpose of recording the conversation)." It was estimated by the Bell System that there were approximately 3,600 such devices in service throughout the system. As previously indicated, however, there are serious flaws in the usefulness of stenographic recordings of telephone conversations. Thus, such recordings may be unreliable because of incompleteness or other errors. In addition, the use of an extension telephone to make a stenographic record of a telephone conversation, without an adequate monitoring device, impairs the quality of the telephone call inasmuch as the use of the extension telephone drains power from the telephone line.

PERTINENT TARIFF REGULATIONS

Six Bell Telephone companies and one non-Bell company have tariff regulations on file with the Commission with respect to interstate and foreign message toll telephone service which are construed by the companies as barring the use of any recording devices in connection with such service unless the devices are furnished or specifically authorized by the particular telephone company.⁸ These tariff regulations are gen-

⁷ Earphones are provided by which the stenographer can, while listening to a telephone call, take shorthand notes of the conversation. The earphones are connected to the telephone line by means of a jack, popularly known as a listening-in jack. The jack can be placed at a point remote from the telephone and the earphones can be plugged into the jack. A high impedance connection is made so as not to drain the line as much as would an equivalent extension telephone.

⁸ The explanation was given that these six Bell companies filed such tariff regulations with the Commission to forestall any question as to whether these tariffs or their exchange tariffs would apply, but this same consideration would appear to have applied also to the other Bell companies which did not make such filings.

erally referred to as the "foreign attachment" provisions. One form of such tariff regulation, filed by the Bell Telephone Co. of Pennsylvania and the Diamond State Telephone Co., reads as follows:

Equipment, apparatus, and lines furnished by the telephone company shall be carefully used and no equipment, apparatus or lines not furnished by the telephone company shall be attached to, or used in connection therewith, unless specifically authorized in this tariff. When equipment, apparatus or lines furnished by the customer or subscriber are used in connection with equipment, apparatus or lines furnished by the telephone company, the equipment, apparatus, and lines furnished by the customer or subscriber must be connected solely with the telephone company's system. Any equipment furnished by the telephone company shall remain the property of the telephone company and upon termination of service for any cause whatsoever be returned to it, in good condition, reasonable wear and tear thereof excepted.

Another form of tariff regulation, filed by the four Chesapeake and Potomac Telephone companies, and the Bluefield Telephone Co., provides:

Customers shall not use or permit to be used any electrical or mechanical apparatus or device in connection with the service or facilities furnished by the telephone company without the written consent of the telephone company, or permit the attachment of advertising devices, except upon approval of the telephone company. In case any instrument, apparatus, or device of any kind other than that furnished or approved by the telephone company is attached to or connected with any part of the telephone company's property, the telephone company reserves the right to remove such instrument, apparatus, or device or to deny service so long as such instrument, apparatus, or device is so attached or connected, or to terminate the service.

The Bell System companies also have similar provisions in their interstate private line telephone service tariffs on file with this Commission. In addition, three Bell companies, the Diamond State Telephone Co., Northwestern Bell Telephone Co., and the Mountain States Telephone and Telegraph Co., have such provisions in their tariffs on file with this Commission covering interstate telephone exchange service in Delaware, Iowa, and Texas, respectively, where there is no State telephone regulatory agency.

The Bell companies have presented evidence to the effect that all Bell companies have "foreign attachment" provisions in their intrastate telephone exchange service tariffs.

The above tariff regulations were intended to prohibit any kind of attachment to the telephone company's facilities unless furnished or authorized by the telephone company and, according to the Bell companies, were not established with telephone recording devices specifically in mind. In the brief filed by the Bell System companies, the following statement is made (pp. 2-3):

The foreign attachment regulations antedate telephone recording devices by many years and have been uniformly approved by the courts and regulatory commissions which have had occasion to pass upon them.⁹ They are designed primarily to protect telephone service in other ways, but lend themselves to the preservation of privacy by prohibiting recording devices.

So far as the record shows, no Bell System company has ever expressly authorized or furnished telephone recording devices, with the exception that recording devices have been furnished and installed by Bell System company for two newspapers. The first of these installations was made in 1936, and both have been in regular use since 1940. The arrangements therefor are carried out under contract, and are not shown in filed tariffs.

BASIS FOR THIS PROCEEDING

The problems which gave rise to this proceeding are the result of the conflict between the presently effective telephone tariff provisions and the present and potential demand for the use of telephone recording devices. As previously indicated, this matter became acute because of the widespread use of such devices during and since World War II. The Bell System companies withheld enforcement of the pertinent tariff regulations during the war since it was indicated that the recording devices were being used in war activities. With the termination of hostilities, however, the question of the status of these devices is presented.

POSITION OF THE PARTIES

There was no direct opposition in this proceeding to the use of telephone recording devices. The principal point of controversy appeared to be the matter of the conditions under which such use should be authorized.

The Bell companies state that they recognize that there are legitimate uses of recorders and understand the desire of those to whose needs they are specially adapted to use them on their lines, but that they also recognize that because of their very nature, recorders on telephone lines

⁹ *N. E. Tel. & Tel. Co. v. Department of Public Utilities*, 262 Mass. 137 159 N. E. 743; *Gardner v. Providence Tel. Co.*, 23 R. I. 262, 49 Atl. 1004; *City of Los Angeles v. Southern California Tel. Co.*, 2 P.U.R. (N.S.) 247 (California); *Hotel Sherman v. Chicago Tel. Co.*, P.U.R. 1915 F,776 (Illinois); *Re Farmers Fountain Tel. Co.*, P.U.R. 1926 C,363 (Illinois); *Re Customers of the Concordia Tel. Co.*, 3 P.U.R. (N.S.) 522 (Missouri); *Quick Action Collection Co. v. N. Y. Tel. Co.*, P.U.R. 1920 D,137 (New Jersey); *Application of State Agricultural and Industrial School*, 4 N.Y. P.S.C.R. (2nd Dist.) 219; *Newton v. Jamestown Telegraph Corp.*, 6 P.U.R. (N.S.) 27 (New York); *King v. Pacific Tel. & Tel. Co.*, 16 P.U.R. (N.S.) 348 (Oregon); *Pa. P.U.C. v. Bell Tel. Co. of Pa.*, 20 Pa. P.U.C. 702; *In re Telephone Companies*, P.U.R. 1915 A,1032 (South Dakota); *Department of Public Works v. Montsano Tel. Co.*, P.U.R. 1925 A,676 (Washington); *In re Rates of the Peoples Tel. Co.*, P.U.R. 1923 C,374 (Wisconsin)."

are subject to serious abuse and endanger the privacy and informality of telephone conversations in a way in which they have never been endangered before. These companies stress the desirability of the preservation of privacy in telephone conversations, and their approach to the problem of the treatment to be given telephone recorders is permeated with this consideration. To quote from their brief (p. 6):

The telephone companies submit that the fundamental principle in solving the problem of the use of recorders in connection with telephone service is that any use without the full knowledge and consent of all parties to the conversation must be prohibited.

The Bell companies state as their position that with respect to exchange and message toll service, they "intend to revise their tariffs to provide for such use of recorders as will not invade the privacy of conversations, where there is sufficient demand for it," and that "prohibition of all other use of recorders on their lines will be enforced by the telephone companies to the best of their ability." They contend, regarding the preservation of privacy, which would be done through notification to the party at the other end of the line that his conversation may be recorded, that "the only practicable plan which they have been able to work out for general exchange and toll service requires that all calls to and from lines arranged for recording be manually operated and routed through a special switchboard position," and "after the connection is established the telephone company operator announces that the conversation may be recorded."

Although recognizing that the use of recording devices in connection with private line telephone service was not made an issue by the Commission's order instituting this proceeding, the Bell companies also gave their position on this matter, stating that "it has been concluded to permit them [recording devices] on private lines which have no access to the general exchange or toll telephone service, subject to the approval of the regulatory authorities." It is explained that "the conditions under which such private lines are used give reasonable assurance that those having access to them would know that their conversation might be recorded."

The Bell companies state further, as to the furnishing of the necessary equipment, that (Brief, p. 7):

Whether on private lines or under the operator announcement plan the recorder could be supplied by the subscriber. The Bell System has no present plans to enter into the general manufacture and sale of telephone recorders. However, if sufficient demand for telephone company owned recorders, supplied on a rental basis, should arise, the telephone companies would probably meet it. The telephone companies would, however, insist, in order to protect the telephone service, that the device

by which the recorder is connected to the telephone circuit be furnished, installed and maintained by the telephone companies.

The Bell companies also argue that the Commission should issue a report presenting the problem and announcing principles on which all regulatory authorities might agree, but that it should issue no order herein. The contentions advanced to support this argument are (1) the Commission has no jurisdiction to make an order regulating the use of recorders because such an order would regulate intrastate service, contrary to sections 2 (b) (1) and 221 (b) of the Communications Act, and (2) the use of recording devices is predominantly a problem for the States because telephone calls are so largely intrastate, and intrastate and interstate calls are commingled.

The United States Independent Telephone Association took a position similar to that taken by the Bell System, with the qualification, however, that the "operator-announcement" plan proposed by the Bell System would be so expensive as to "be prohibitively burdensome to smaller telephone companies." In its exceptions to the proposed report, and at the oral argument, the Association contended that no final order of the Commission on this matter should be made effective until the telephone industry and the Commission have, by an engineering conference or otherwise, found a satisfactory warning device, if the Commission found finally that a warning device constituted sufficient notice to users that a telephone recorder was being used.

The position taken by the manufacturers of the telephone recording devices may be summed up as follows: That such devices are in extensive use and in great demand for entirely legitimate governmental and commercial purposes; that their use is hampered, if not prevented, by present tariff restrictions; that their use does not impair either the privacy or the quality of telephone service; that their use enhances the usefulness of telephone service; that the "operator-announcement" plan proposed by the Bell System is too cumbersome and expensive; that suitable notification to users indicating the use of a recording device can be otherwise effectuated; that the telephone companies' "foreign attachment" tariff regulations on file with the Commission are unjust and unreasonable, and therefore unlawful under the Communications Act; and that the Commission has jurisdiction to, and should, prescribe a tariff regulation authorizing the use of telephone recording devices in connection with interstate and foreign message toll telephone service.

The National Association of Railroad and Utilities Commissioners has submitted suggestions, but it has taken no position on any of the matters in question here. Regarding the matter of the Commission's jurisdiction, the Association directed attention to the large proportion of intrastate

and exchange telephone calls, and stated that the Commission should not enter any order in this case which would directly or indirectly impair complete freedom of action by the State Commissions to regulate telephone facilities while being used for intrastate toll and exchange service. The association further stated that the Commission should not enter any order herein which would permit anyone other than the telephone company physically to connect any device to existing telephone lines; or which would authorize the use of recording devices requiring physical connection to telephone lines, unless the device is so arranged that the telephone user can make a complete physical disconnection of the device while using the telephone facilities for intrastate toll or exchange purposes. In a letter of comment on the proposed report, it was noted that in view of the Commission regulation proposed, the association did not deem it necessary, at the time, to take a position on the question of jurisdiction, although this was not to be taken as an indication that the association necessarily agreed with the views respecting jurisdiction expressed in that report.

On behalf of the one State Commission which intervened, the Wisconsin Public Service Commission, the maintenance of privacy of telephone communications was stressed, and it was particularly noted that in the event recording devices are to be used, a warning device should be provided so that those participating in the call would know of such use. The California Railroad Commission, in its written statement of comment on the proposed report, suggested that the automatic warning signal should resemble the surface noise of a recording or transcription; that provision could be made for the subscriber to dial a particular telephone number in order to familiarize himself with the automatic signal; and that the directory information, instead of being an asterisk by the name of each subscriber with a recorder should be limited to an introductory page describing the use of recording devices and the automatic signal.

JURISDICTIONAL QUESTIONS

The Bell System companies raised certain jurisdictional questions, as indicated above, arguing that the Commission should issue no order herein. The Bell System does "not question the interest of the Commission in the use of recording devices or its jurisdiction to conduct this investigation." Indeed, it is stated in the Bell System's brief that (p. 32):

A report from this Commission which would present the problem and announce principles on which all regulatory authorities might agree would be invaluable in reaching a solution in the public interest. Substantial agreement of the regulatory authorities is of paramount importance. If it can be achieved, and there is no

apparent reason for believing it cannot, difficulties arising out of limitations of the Commission's jurisdiction will be avoided.

The Bell System companies argue that telephone recording devices, to be used, must be connected in some way with telephone facilities on subscribers' premises; that such telephone facilities are used jointly and indiscriminately for intrastate exchange and toll, and interstate toll, telephone services; and that the joint use of the telephone facilities in the various services and the "practical impossibility" of preventing recorders from being used in any of the services in which the telephone facilities are used, therefore mean that any regulation of recorders in interstate toll service would necessarily regulate their use in intrastate toll and exchange service as well. It is asserted that this situation raises the question of the Commission's jurisdiction under section 2 (b) (1) and 221 (b) of the Communications Act, which sections exclude the Commission from jurisdiction over intrastate communication service, and, under certain circumstances, over telephone exchange service.¹⁰ Characterizing the intrastate exemption in section 2 (b) (1) as more comprehensive, the argument proceeds in terms of this provision. It is contended that any order of the Commission requiring that the telephone companies permit, prohibit, or restrict the use of recording devices in connection with interstate toll service would affect intrastate service. It is asserted such an order would regulate facilities used in rendering the intrastate services by prescribing what could or could not be connected with them. It is stated to be the position of the Bell System that facilities which are used for both interstate and intrastate services are excluded from the Commission's jurisdiction as "facilities * * * for or in connection with intrastate communication," as that term is used in section 2 (b) (1) of the Communications Act. The Bell System concludes (Brief, p. 30):

It follows from what has been said that the jurisdiction of the Commission to make an order regulating the use of recorders is limited to use in connection with facilities which are exclusively interstate.

Upon consideration of the above argument, in the light of the facts and the relevant provisions of the Communications Act, the Commission

¹⁰ Section 2 (b) provides in part as follows:

"Subject to the provision of section 301, nothing in this act shall be construed to apply or to give the Commission jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service of any carrier * * *"

Section 221 (b) provides:

"Nothing in this act shall be construed to apply, or to give the Commission jurisdiction, with respect to charges, classifications, practices, services, facilities, or regulations for or in connection with wire telephone exchange service, even though a portion of such exchange service constitutes interstate or foreign communication, in any case where such matters are subject to regulation by a State commission or by local governmental authority."

is of the opinion that it clearly has jurisdiction to act with respect to the matter of the use of recording devices in connection with interstate and foreign message toll telephone service. The foregoing argument of the Bell System has obvious fallacies: It ignores entirely the basic grant of jurisdiction to this Commission over interstate and foreign communication by wire or radio (see Communications Act, secs. 1 and 2 (a)), and it pays no heed to the facts of operation of telephone recording devices.

The operating facts may well be considered first, since they also have a direct bearing on the factors mentioned by the National Association of Railroad and Utilities Commissioners. In fact, a practical distinction can be made between the use of recording devices on interstate, as against intrastate, calls. It is proposed, and we conclude reasonably so, that it be required that recording devices be used only when such devices are so constructed that at the will of the users, they can be physically connected to and disconnected from the telephone line, or switched on and off. In the case of the physically connected type of recorder, the connection can be effected by means of a plug-in jack arrangement¹¹ so that a disconnection can be made simply by pulling out the plug. The inductive type of recorder, which does not require a wire connection with the telephone line, must be switched on in some fashion to be used and hence can simply be switched off when its operation is not desired. Thus, there is no reason why a recording device which can be used in connection with an interstate or foreign telephone call must be used in connection with an intrastate call; on the contrary, users can easily limit the employment of recording devices to their interstate and foreign calls. Accordingly, State and other local regulatory authorities remain entirely free to deal as they see fit with the use of recording devices on intrastate calls. Whether, as the Bell System suggests, a user with a recording device will employ it on intrastate, as well as interstate and foreign calls, obviously depends on the position taken in the matter by the appropriate local authorities.

It may be commented further, however, that the Bell System argument ignores the real consideration that interstate and foreign message toll telephone service requires the use of facilities that are not "exclusively interstate." This service necessarily involves all the facilities, charges, classifications, practices, services, and regulations used in the rendition of the service, and regulation of such service must be able to deal with all or any of the matters so involved if it is to be effective. This is clearly the purport of the comprehensive common carrier provisions of the Communications Act. See *Matter of Hotel Surcharges*,

¹¹ As hereinafter found, the installation of the jack should, however, be made by the telephone company.

decided December 10, 1943, F.C.C. Docket No. 6255 (52 P.U.R. (N.S.) 141 (1943)); *Ambassador, Inc. v. United States*, 325 U.S. 317.¹²

The relative percentages of interstate and intrastate telephone calls cited by the Bell System in its argument also tend to give a distorted picture. Of course, intrastate calls far predominate numerically, interstate toll calls being, in the year 1944, only 1.3 percent of all calls (exchange and toll) and 25.6 percent of all toll calls, according to Bell System estimates. But behind these percentages were 359,000,000 interstate and foreign toll messages.

RECORDING DEVICES AND THE QUALITY OF TELEPHONE SERVICE

It is clear from the record that the use of recording devices is not detrimental to the quality of telephone service. The modern electronic recording device is so equipped as to cause no measurable drain on the telephone talking circuit, and so as to prevent a short circuit or other trouble in the device from impairing telephone service.

In the case, however, of recorders which are physically connected to the telephone circuit, it is necessary that the recorder be properly connected to the telephone line to protect against impairment of the telephone service. A faulty connection might reduce the efficiency of the circuit, thereby impairing transmission, or, being connected with the house current, impress on the circuit harmful voltages or currents which might be injurious to person or plant. The method of connection itself might cause trouble in the telephone circuit. Adequate connecting arrangements can be provided, however, and it is apparent from the record that the protection of the telephone service can be satisfactorily accomplished in the connection of recorders to the telephone lines.

Although the Bell System has specifically stated that it has no objection to a telephone user providing his own recording device, it does assert that since the connecting device is of primary importance to the telephone service and is a part of the telephone facilities, it is essential that it be furnished, installed, and maintained by the telephone companies, as are the rest of the telephone facilities. There was no disagreement on this point on the part of any of the parties. The Commission is of the opinion that the furnishing, installation, and maintenance of the necessary connecting device should be the responsibility of the telephone

¹² The Commission can hardly believe that at this late date in the history of Federal regulation, the Bell System is seriously attempting to remove practically all its facilities from the jurisdiction of this Commission, but the logical result of the above test proposed by it, "facilities which are exclusive interstate," would do just that. For example, it would logically follow from the Bell System argument that even though a facility were essential for the rendition of interstate and foreign message toll telephone service, it could be freely abandoned with impunity under the Communications Act so long as it was not an "exclusively interstate" facility. But see section 214 of the act and part 63 of the rules and regulations, governing discontinuances of service.

companies. This would mean that where a plug-in jack arrangement is to be used to connect the recorder to the telephone line, the jack installation should be furnished, installed, and maintained by the telephone companies. Where, however, an inductive recorder is to be used, there would appear to be no necessity for any equipment to be furnished, installed, or maintained by the telephone companies. The inductive recorder should be so constructed that when used for telephone recordings, it would not interfere in any way with the operation of the telephone circuit. The matter of the engineering standards that should be established to assure against any such interference is one of the matters that should be considered at the engineering conference the Commission will hold, as hereinafter set forth, to consider what technical requirements should be imposed in connection with the use of telephone recording devices.

One question raised by the recorder manufacturers is that sales demonstrations of their equipment to prospective customers would be hampered if they are required to have telephone company personnel make the connections of the equipment to the telephone line. This difficulty would, of course, not exist in the case of inductive recorders. As for the type involving a wire connection to the telephone line, we are of the opinion that it is more important to assure that such a connection be properly made, to prevent interference to telephone service, than that the sale demonstrations be made without hindrance. The telephone companies should, however, cooperate fully with the recorder organizations so that no unreasonable delays will occur in the connection of recorders for sales demonstrations, and the Commission will act promptly on any complaints against telephone companies in this respect.

RECORDING DEVICES AND THE PRIVACY OF TELEPHONE SERVICE

It has been previously observed that in this proceeding there has been no objection to the use of telephone recording devices as such. They have been recognized as being a modern and legitimate aid to government and commerce. The telephone companies have, however, emphasized the "right of privacy" in telephone communications, and urged that this "right" would be infringed by the use of telephone recorders without adequate notice to the parties that their conversation was being recorded. It has been stressed that in the interest of preservation of telephone privacy, the use of telephone recorders should be barred except where such notice is given. The recorder manufacturers, on the other hand, challenge the claim of the telephone companies to the existence of privacy in telephone conversations, pointing to the availability of extension telephones, party-line service, plug-in jacks, and monitoring devices, which make it possible for persons to listen in on a telephone

conversation without the knowledge of the parties.¹³ The manufacturers contend that no form of notification of the use of telephone recorders is necessary, since recorders will in all probability be limited to legitimate government and commercial use, and the users could be generally advised, through the medium of a general publicity program and information in the telephone directory, that recorders may be used. The manufacturers, however, would apparently have no objection to some kind of specific notice, although at least one, the Dictaphone Corp., indicated that a requirement of a mechanical warning signal would be objectionable "as impairing the coherence of telephone conversations and unduly annoying the conversers."

The Commission is of the opinion that the use of telephone recording devices should be permitted in connection with interstate and foreign message toll telephone service. These devices have been clearly shown on the record here as having a useful and legitimate place in the conduct of governmental and private business. The Commission is, however, keenly appreciative of the importance and desirability of privacy in telephone conversations. Such conversations should be free from any listening-in by others that is not done with the knowledge and authorization of the parties to the call, whether this be done by recording devices, extension telephones, monitoring devices, or any other means, and the Commission is prepared to take all steps within its authority to accomplish this objective. Accordingly, the Commission is firmly of the opinion that the use of telephone recording devices should be permitted only when measures are in effect to assure notification to the parties that their conversation is being recorded.

METHOD FOR NOTIFICATION OF USE OF TELEPHONE RECORDING DEVICES

At the hearing, there were discussed several methods for notification of the parties to a telephone conversation that recording devices were being used. These were as follows:

- (1) Automatic tone warning.
- (2) Automatic voice announcement.
- (3) Operator-announcement plan.
- (4) Directory listing plan.

These will be discussed in order.

Automatic tone warning.—The warning mechanism would operate whenever the recording device was being used, and it would superimpose

¹³ The telephone companies' answer to these instances is essentially that this is a matter of degree; that "even though in some other cases privacy has had to be sacrificed to a limited extent in order to furnish economical and efficient service to large classes of telephone subscribers, that does not justify further and more serious infringements upon the privacy of telephone conversations for the benefit of a few."

on the telephone conversation a distinct recurring signal, such as musical notes, at regular intervals of, say, about 15 seconds.¹⁴ This signal should be loud enough to be clearly heard, but at the same time, the signal should not unduly interfere with the conversation. The Bell System estimates that it would cost from \$25 to \$50 to manufacture this warning device. The Bell System argued that this warning was inadequate because the musical tone would not be self-explanatory and the general public could not be taught its significance.

Automatic voice announcement.—Under this method, the automatic warning would be by a voice announcement made by a record. A musical tone would be transmitted over the circuit at intervals of about 15 seconds, followed immediately by an announcement: "This conversation is being recorded." The Bell System points out, by way of objection to this method, that the announcement must be loud enough to be heard, which means it would interrupt the conversation for the time it required, about 3 seconds. Even if the text of the announcement were shortened, there would be substantial interference with the telephone call, the call would probably be lengthened, and charges to the user for the call thus increased.

Operator-announcement plan.—Under this plan the recorder is connected with a special telephone line which terminates at a special telephone company operator position. All incoming and outgoing calls involving this special subscriber line would be handled by the operator at the special position. The special operator would complete all calls and make an announcement to the other party, before the start of the conversation, that the special line is equipped with a voice recorder which may be used to record the conversation. The Bell System argues that this plan is the "only reasonably certain and efficient arrangement to secure adequate notice to telephone users that their conversations may be recorded."

It would appear to be possible for situations to occur where this plan, as elaborate as it is, might not result in a warning to the principal parties to the conversation, because one or the other, or both, were not on the line when the connection was first established. This might be the case, for example, on a station-to-station call initiated by others on behalf of either or both of the principal parties. This plan may be less certain in effect than the automatic warning recurring throughout the call.

¹⁴ It has been noted that the California Railroad Commission suggested that the warning signal should resemble the surface noise of a recording or transcription. The Bell System comments on this suggestion were to the effect that such a signal might not be sufficiently distinctive; also, that the signal would have to continue throughout the recording and would interfere with the recording and perhaps with the clarity of the telephone conversation.

The operator-announcement plan would also involve considerable expenditure for the installation and operation of additional subscriber lines and associated equipment for this special purpose. The additional operating cost to the customer for service under the plan was estimated to be \$5 monthly per line, based on a thousand calls per year and a substantial number of special recording lines. The U.S.I.T.A. also contends that this is the only method so far devised which would give adequate notification, but it alleges that the expense of this method would be prohibitively burdensome to smaller telephone companies. A further objection is that the requirement of handling all calls through the special operator, even those calls on which no recorder is to be used, would involve service delays. The alternative of a separate line for use only on calls to be recorded would add substantially to the subscriber's telephone costs.

Directory listing plan.—Under this plan, an asterisk or some other special indicator would be placed alongside the name of each subscriber who had a telephone recording device. This indicator would refer to a note of explanation at the bottom of the directory page.¹⁵ The Bell System criticizes this plan as affording no protection to persons called from a telephone at which there is a recorder; it does not cover the situation where recorders are installed after the publication of a directory; and many calls are made without reference to telephone directories, as, for example, from letterheads, advertisements, or long-distance calls from other cities.

CONCLUSIONS ON METHODS OF NOTIFICATION OF USE OF RECORDING DEVICES

Upon consideration of the above methods of notification, the Commission is of the opinion that a form of automatic tone warning, generally uniform throughout the United States, supplemented by appropriate publicity by both the telephone companies and the recorder manufacturers, should serve adequately to inform users of interstate and foreign message telephone toll service as to the use of recording devices in connection with such service. Any publicity program should make provision for the insertion of full page statements in the telephone directories informing the telephone using public of the nature and use of recording devices and describing in detail the operation and significance of the tone warning signal. In addition, the telephone companies can familiarize the public with the tone warning signal by making available a special telephone number which, when dialed or called, would reproduce the tone warning sound. Even if the publicity should not reach the particular user, a recurrent unusual sound should make him sufficiently

¹⁵ It is of interest to note that such a plan has been in use in England and Sweden.

suspicious to cause him to ascertain the reason therefor. Of course, the other party might attempt to deceive him as to the cause of the sound, but if the party would work such a deceit, he would presumably attempt to evade any safeguards intended to protect a telephone user against the use of recording devices without his knowledge and authorization.

The Commission recognizes the defects pointed to by the Bell System in the directory listing plan and concludes that such plan would not be effective in providing adequate notice of a recording device.

With respect to the operator-announcement plan proposed by the Bell System, the Commission is of the opinion that this plan is much too cumbersome, involving too much expense and service inconvenience in relation to what can be achieved thereby. Insistence on such a plan might well defeat the objective of regularizing the use of recording devices.

The above conclusions regarding the use of telephone recording devices, and particularly their connection with the telephone line and the form of automatic warning signal, present specific engineering questions. These questions include such matters as how the physically connected type of recorder should be connected to the telephone line, how the automatic warning device should be connected, and the development of an adequate tone warning signal which will be of sufficient audibility to be heard by parties to a recorded telephone conversation, but will not impair the clarity or coherence of the telephone conversation or the recording thereof. The matter of obtaining uniformity of the signal produced by the automatic tone warning devices associated with different types of recording devices and the proper interval of time between signals also require further investigation and study. Since these questions are principally of a technical or engineering character, it is the opinion of the Commission that they can be most readily resolved by an engineering conference of representatives of the telephone companies, the manufacturers of recording devices, the State Commissions and this Commission. On the basis of such findings and recommendations as result from this conference, the Commission will give consideration to the adoption of engineering standards to govern the installation, use, and operation of telephone recorders and automatic tone warning devices. The Commission will postpone issuance of its final order in this proceeding until such consideration has been had.

LAWFULNESS OF PRESENT TARIFF REGULATIONS APPLICABLE TO TELEPHONE RECORDING DEVICES

In view of our conclusion that under certain conditions, the use of recording devices should be permitted in connection with interstate and foreign message toll telephone service, it is our further conclusion that

insofar as any tariff regulations on file with us have the effect of barring such use of recording devices, such tariff regulations are unjust and unreasonable, and therefore unlawful under the provisions of section 201 of Communications Act.¹⁶

APPARENT VIOLATIONS OF APPLICABLE TARIFFS

The record herein indicates that recording devices have been used in connection with interstate and foreign message toll telephone service despite effective tariffs on file with this Commission apparently prohibiting such use. The Commission is of the opinion, however, that no action is called for with respect to these apparent tariff violations in view of the above conclusion as to unlawfulness of the pertinent tariff regulations as applied to telephone recording devices. Of course, once just and reasonable tariff regulations concerning this matter are on file with this Commission, and are in effect, strict adherence thereto, in accordance with the provisions of section 203 of the Communications Act, will be expected.

TARIFF REGULATIONS TO BE ESTABLISHED

The Commission is of the opinion that tariff regulations should be filed with it in accordance with section 203 of the Communications Act, by all telephone companies required to file tariffs thereunder, which state, in conformity with the above conclusions, that recording devices may be installed and used in connection with interstate and foreign message toll telephone service, but only under certain specified conditions. These conditions should include the requirements that recording devices be used only when such device, at the will of the user, can be physically disconnected from the telephone line or switched off; that recording devices, whether they be physically, or inductively connected, be used only when such use is accompanied by the operation of an automatic tone warning device; and that the telephone companies will provide, install and maintain any equipment which is necessary physically to connect a recording device to the telephone line. Specific provision concerning the furnishing, installation, and maintenance of an automatic tone warning device may also become necessary, depending upon the outcome of the engineering conference to be held as indicated above. Provision should also be made for reasonable arrangements which would

¹⁶ Another aspect of this matter is found in the fact that the application of the pertinent tariff regulation of the four Chesapeake and Potomac Telephone companies and of the Bluefield Telephone Co., is dependent upon the "consent" or "approval" of the telephone company. This would also render the tariff regulation unjust and unreasonable, and thus unlawful under the Communications Act. Published tariffs should be definite and certain so that a user can ascertain therefrom that to which he is entitled, without regard to the whim of the telephone company. See our rules and regulations, section 61.55 (f).

permit sales demonstrations by recorder organizations of their equipment. Tariff provisions so filed should afford a definite basis for the regulation under the Communications Act of the use of recording devices, enabling the regularization of such use and the elimination of unauthorized use.

CONCLUSIONS

1. A real need and demand exist, for legitimate governmental and commercial purposes, for the use of recording devices in connection with interstate and foreign message toll telephone service.

2. The use of recording devices does not impair the quality of telephone service. In the case of a recorder physically connected to the telephone line, proper safeguards should be employed in the connecting equipment.

3. The use of recording devices in connection with interstate and foreign message toll telephone service should be authorized, provided such use is accompanied by adequate notice to all parties to the telephone conversation that the conversation is being recorded. Adequate notice will be given by the use of the automatic tone-warning device, which would automatically produce a distinct signal that is repeated at regular intervals during the course of the telephone conversation when the recording device is in use. Both the telephone companies and the recorder manufacturers should also undertake a publicity program designed to inform telephone users generally of the use of telephone recording devices and of the import of the warning signal. Any publicity program should provide for the insertion of full page statements in telephone directories, informing the telephone using public of the nature and use of recording devices and describing in detail the operation and significance of the tone warning signal. In addition, the telephone companies should make available a special telephone number which when dialed or called, would reproduce the tone warning sound.

4. No recording device should be used in connection with interstate and foreign message toll telephone service unless, at the will of the user, it can be physically connected to and disconnected from the telephone line or switched on and off.

5. In the case of a telephone recorder physically attached to the telephone line, the equipment necessary to make such physical connection should be provided, installed, and maintained by the telephone companies.

6. Insofar as any tariff regulations now on file with this Commission have the effect of barring the use of recording devices in connection with interstate and foreign telephone service under the conditions of such use concluded above to be proper, such tariff regulations are unjust

and unreasonable, and therefore unlawful under the provisions of section 201 of the Communications Act.

7. Telephone carriers subject to the Communications Act should, in accordance with the provision of section 203 of the act, file tariff regulations with the Commission in which the use of recording devices in connection with interstate and foreign message toll telephone service is authorized, so long as the recording device can, at the will of the user, be physically connected to or disconnected from the telephone line or switched on and off. Such tariff regulations should provide that recording devices be used only when such use is accompanied by the operation of an automatic tone warning device; and that the telephone carriers will furnish, install, and maintain any equipment which is necessary physically to connect a recording device to the telephone line. Provision should also be made for reasonable arrangements which would permit sales demonstrations by recorder organizations of their equipment.

8. An engineering conference of representatives of the telephone companies, the recorder manufacturers, the State commissions and this Commission, will be held to consider the technical questions presented by the use of telephone recorders, and the installation and operation of proper automatic tone warning devices. On the basis of such findings and recommendations as result from this conference, the Commission will give consideration to the adoption of engineering standards to govern the installation, use, and operation of telephone recorders and automatic tone warning devices in connection with interstate and foreign message toll telephone service.

9. The Commission will postpone the issuance of a final order in this proceeding until it has considered these engineering matters.

11 F. C. C.

From _____ to _____ I recorded a small percentage of my own incoming and outgoing telephone conversations with others, utilizing commercially available equipment. This was done solely to ensure accuracy and facilitate appropriate follow-through on the topics discussed, and for no other purpose. As soon as these few tapes were transcribed, the tapes were erased for further use. The transcript of the conversation was forwarded to the appropriate staff person for action and follow-up. I often advised the caller that I was recording the conversation or a portion of it, but in haste, I did not do this consistently. When concerns about this practice of taping were raised by my staff, I recognized that in my desire to ensure accuracy and promote the mission of the Agency I may have been insufficiently sensitive to concerns some may have about the practice of recording telephone conversations; accordingly, I discontinued the practice.

Throughout my tenure as Director, I have memorialized my own thoughts and the thoughts of others on a dictaphone and distributed transcripts of these tapes to my staff for appropriate action. The recording of some of my telephone conversations was an outgrowth of that practice. Both were a convenient substitute for my taking notes during conversations. I will continue to record such thoughts, but will not use the direct recording of anyone else's conversations.

The practice of recording one's own telephone conversations is not illegal, but upon reflection I can understand how some might find it intrusive. I meant no offense to anyone and apologize if any was taken. I was seeking to improve the efficiency of the USIA, but do not want to do anything that would in any way diminish the confidence of the American public, or of those who are our world-wide audience, in the mission of this wonderful organization or the Administration's efforts in its support.

I often admit the whole thing I was recording the conversation a part of it, but in fact I did not do this conversation.

From _____ to _____ I recorded a small percentage of my own incoming and outgoing telephone conversations, ^{with others, including community available} This was done solely to ensure accuracy and facilitate appropriate follow-through on the topics discussed, and for no other purpose. As ^{these four tapes were transcribed, and the tapes were saved for further use. The tapes were} soon as transcripts of the conversations served this purpose they ^{of this conversation was forwarded to the appropriate staff person for action and follow-up and} were destroyed. ~~No tapes have been preserved.~~ When ~~objections~~ ^{concern} were raised I recognized that in my desire to ensure accuracy and promote the mission of the Agency I may have been insufficiently sensitive to concerns some may have about the practice of recording telephone conversations; ~~and~~ accordingly, I discontinued the practice.

Throughout my tenure as Director, I usually

I often memorialize my own thoughts, ^{and the thoughts of others} on a dictaphone and distribute transcripts of the ^{at} tapes to my staff for appropriate action, and the recording of some of my telephone conversations was an outgrowth of that practice. ^{Both was a constant substitute to my taking notes during} I will continue to record my ^{own} thoughts, but will not ^{use the dictaphone recording} record those of anyone else's ^{conversations.}

The practice of recording one's own telephone conversations is not illegal, but, ^{upon reflection} I can understand how some might find it

intrusive. I meant no offense to anyone and apologize if any was

taken. ~~I am aware that it is not the~~ ^{It is not the} I was seeking to improve the efficiency of the USIA, ~~but~~ do not want to do anything that will in any way diminish the confidence of the American public, or of those who are our world-wide allies, in the mission of this wonderful organization or the Administration's efforts in its support.

From _____ to _____ I recorded a small percentage of my own incoming and outgoing telephone conversations with others, utilizing commercially available equipment. This was done solely to ensure accuracy and facilitate appropriate follow-through on the topics discussed, and for no other purpose. As soon as these few tapes were transcribed, the tapes were erased for further use. The transcript of the conversation was forwarded to the appropriate staff person for action and follow-up. I often advised the caller that I was recording the conversation or a portion of it, but in haste, I did not do this consistently. When concerns about this practice of taping were raised by my staff, I recognized that in my desire to ensure accuracy and promote the mission of the Agency I may have been insufficiently sensitive to concerns some may have about the practice of recording telephone conversations; accordingly, I discontinued the practice.

Throughout my tenure as Director, I have memorialized my own thoughts and the thoughts of others on a dictaphone and distributed transcripts of these tapes to my staff for appropriate action. The recording of some of my telephone conversations was an outgrowth of that practice. Both were a convenient substitute for my taking notes during conversations. I will continue to record such thoughts, but will not use the direct recording of anyone else's conversations.

The practice of recording one's own telephone conversations is not illegal, but upon reflection I can understand how some might find it intrusive. I meant no offense to anyone and apologize if any was taken. I was seeking to improve the efficiency of the

diminish the confidence of the American public, or of those who are our world-wide audience, in the mission of this wonderful organization or the Administration's efforts in its support.

From _____ to _____ I recorded a small percentage of my own incoming and outgoing telephone conversations. This was done solely to ensure accuracy and facilitate appropriate follow through on the topics discussed, and for no other purpose. As soon as ^{the tapes} ~~transcripts of the conversations~~ served this purpose they were ~~destroyed~~ ^{erased}. No ^{recordings} ~~tapes~~ have been preserved. When objections were raised I recognized that in my desire to ensure accuracy and promote the mission of the Agency I may have been insufficiently sensitive to concerns some may have ^{had} ~~about~~ the practice of recording telephone conversations, and accordingly I discontinued the practice.

I often memorialize my own thoughts on a dictaphone and distribute transcripts of the tapes to my staff for appropriate action, and the recording of some of my telephone conversations was an outgrowth of that practice. I will continue to record my own thoughts ^{in this fashion} but will not record ~~those of anyone else~~ ^{any telephone conversations}.

The practice of recording one's own telephone conversations is not illegal, but I can understand how some might find it intrusive. I meant no offense to anyone and apologize if any was taken.

as soon as transcripts of the conversation would
this purpose they were destroyed. No tapes have been
preserved.

From _____ to _____ I recorded a
small ~~percentage~~ percentage of ~~the~~ my own
incoming and outgoing telephone conversations.
This was done solely to ensure ~~the~~
accuracy ~~of the~~ and facilitate
appropriate follow through on the
topics discussed, ~~when this purpose was~~
~~when~~ when objections were raised ~~concerning~~
~~the practice of~~ ~~transcribing~~ I recognized
that ~~it may have been~~ in my
desire to ~~ensure~~ ensure accuracy and
protect the ~~the~~ mission of the
Agency I may have been insufficiently
sensitive to concerns some may have
about the practice of recording telephone
conversations, and accordingly I discontinued
the practice. (9) ~~After~~ & ~~the~~ after
reconsidering my own thoughts on a
dictaphone and distribute transcripts of
the tapes to my staff for appropriate
action, and the ~~the~~ ~~the~~ recording
of my telephone conversations was an outgrowth
of that practice. I will continue to
record my own thoughts but ~~will~~
~~will~~ will not record those of anyone
else.

The practice of recording one's own telephone
conversations is not illegal, but I can
understand how some might find it
intrusive. I want no offense to
anyone and apologize if any was taken.

and
for
no
other
purpose.

some
of

1. what + when
2. purpose + alone + should when purpose served.
3. look → unofficiously wanted to know how my
husband about practice.
4. permitted + will not receive
5. do remember my on thoughts, + will be no
6. not illegal + I am advised that we will
file it without, + thus permitted. Analysis,
no offense.

George Bollinger - Deputy Assoc AG - checking

Mr. Shoben - FCC GC - checking

DC: crim, + civil remedy.

605 Convention det

724-7194

18 WEC 2510 [David Klein]
2520

in state court days when fed have, but some
state law more stringent

ATT Tenth: require long term

interstate long term
interstate

NPRM: abolish

ATT could comment

2510: a \$10K, 5 yrs.

2510(2)(c): when color of law is party days

(2)(d): days of party, unless in furtherance of crime, tort.

(3): pay until maturity.

2512: summary of services for ill

2520: civil action

- 48 FR 51650

11/10/83

47 CFR 64.501

400 FS 431, 440 534 P20 330

668 F20 956

589 F20 959

THE WHITE HOUSE
WASHINGTON

2801 Rock Creek Drive

S. End of McGill Terrace

1st light part

Shoulam, off
of Calvert.

A FCC

AG's guidelines

Cal, Fla: 2-party consent - mandatory

N.Y. (?)

Fed law: 18 USC 2511: no prob if one-party
consent, + not used for crim further act or
for purpose of committing other unlawful act

D.C. law: 23-542: ditto.

FCC: brip tone, no penalty, NPRM

Cal, Fla, N.Y.: 2-party consent rules

⇒ AG's guidelines on your enrollment

Outstanding Questions on Wick Recording

1. Exactly when was the practice commenced and exactly when was it terminated? [News accounts reveal inconsistency in Wick's comments on these points.]
2. Has Wick engaged in this practice on other occasions?
3. Has Wick ever recorded telephone conversations in a state where this is illegal without the consent of all parties? [I have not yet surveyed all the state laws, but the news accounts indicate taping without the consent of all parties is illegal in California, Florida, Maryland, Delaware, Georgia, Illinois, Massachusetts, Michigan, Montana, New Hampshire, Pennsylvania, and Washington state.]
4. Do any tapes of telephone conversations exist? [According to Safire's column, Wick was somewhat equivocal on this point.]
5. Were any tapes erased only after the public disclosure of this practice was imminent?
6. Do the transcripts of taped conversations still exist? If not, when were they destroyed, under what authority, and with what procedures?
7. Who listened to the tapes or saw the transcripts?
8. Was classified information ever recorded?
9. Can Wick identify any callers who were told that they were being recorded? [This would substantiate the claim that Wick "often" advised callers that he was recording the conversation. NB: If verbatim transcripts exist, they should contain Wick's advice to the caller that the conversation was being recorded.]
10. How was the recording device activated?
11. How did Wick decide which calls to record?
12. Were the recordings ever used for any purpose other than USIA action items? Did Wick ever show the transcripts to or play the tapes for anyone outside USIA?
13. Roughly how many conversations were recorded? Do any records exist that show which calls were recorded?
14. Did Wick ever record face-to-face conversations without advising all participants?

December 27, 1983

STATEMENT BY DIRECTOR CHARLES Z. WICK

At no time have I done or committed any illegal or morally offensive action. For generations government agencies, as well as private businesses within the law, have taped or transcribed conversations from time to time in the interest of accuracy and the need for follow through. This was done on occasion at our Agency for those purposes and those purposes alone. When someone on our staff raised an issue as to possible violation of regulations, I immediately ordered this practice discontinued. After careful checking today, I am assured by highly respected lawyers, in and out of government, that there is no taint of illegality whatsoever, as has always been my belief. Since I took over the USIA and assembled a team such as Ken Tomlinson, Director of the Voice of America, who had been Senior Editor of Readers Digest, we have made this Agency a highly effective force in carrying the story of America and the free world from Poland to Grenada and events in between. In so doing, I realized we would make enemies and that I was a constant target of these enemies, some of whom are former employees of USIA whose services were terminated.

I know directly that much of this attack was supplied and motivated by some of these enemies who went so far as to take papers and documents out of our files. It is ironic that this attack comes on the heels of an important advance that USIA has made on behalf of America which was highlighted in an editorial today in the Wall Street Journal. Euronet, the latest in a long list of accomplishments by the Agency, is USIA's new transatlantic video press conference. According to the WSJ, Euronet is "...part of a new U.S. shot at getting its policies better understood abroad. The U. S. Information Agency has gone high-tech to allow European journalists to reach out and touch U.S. officials. ...It looks as if the USIA is up to some good and putting American officials directly before European questioners and audiences is bound to increase the understanding of all concerned."

It seems to be fashionable for the anti-Administration press to pick out a victim of the week in an attempt to discredit the Administration. Now my turn has come and I do not intend to be smeared by these tactics. I decline to be intimidated by this type of dishonesty when I have done nothing for which any apology is required and when I have the support of so many people of all political persuasions who want USIA and the Voice to continue as strong spokesmen for this country throughout the world.



U.S. Department of Justice
Office of the Associate Attorney General

December 27, 1983

NOTE

TO: John Roberts

FM: George H. Bohlinger, III 

As per our telephone conversation on Friday,
December 23, 1983.

Attachment



U.S. Department of Justice

Office of the Associate Attorney General

Drug Task Force Administrative Unit

Washington, D.C. 20530

December 23, 1983

TO: George H. Bohlinger, III
Deputy Associate Attorney General

FROM: Virginia Jurewicz *VJ*

SUBJECT: Federal Prohibitions Against a Private Individual Recording
His Telephone Calls

This memorandum addresses your question of whether there is any federal prohibition against a private individual recording all his incoming telephone calls. The short answer is that, under federal law, a person who is a party to a telephone conversation has lawful authority to record, or permit another to record, the contents of his conversation for any legitimate purpose. 18 U.S.C. §2511(2)(d). This does not necessarily mean, however, that an individual is legally permitted to "tap" his telephone.

The primary element critical to establishing the legality of intercepting and recording any telephone conversation under 18 U.S.C. §2511(2)(d) is the consent of a party to the conversation to the interception. Where one of the parties consents, the interception is lawful. The case of a tap on a telephone used by persons unaware of the tap's existence presents a problem in that conversations may be intercepted between parties who have not given their consent to such interception. In such cases, the interception is unlawful.

The intent of Congress in enacting criminal sanctions against wiretapping was to establish "a blanket prohibition against the interception of any wire communications." S. Rep. No. 1097, 90th Cong., 2d Sess. 91-92 (1968). (emphasis added). Congress articulated only five exceptions to this blanket prohibition and the sole exception relevant here requires that a party to the conversation consent to the interception. The legislative history of Section 2511(2)(d) indicates that this consent may be "expressed" or "implied." S. Rep. No. 1097, supra, p. 94. Express consent requires no elaboration. From an examination of the legislative history, it appears that implied consent will be found in the case of wire interceptions where the interceptor (i) has a sufficient interest to be protected, and (ii) provides advance notification of the possible interception to users of the telephone (i.e., those persons who are deemed to be "impliedly consenting"), thereby destroying any expectation of privacy on their part. See Jandak v. Village of Brookfield, 520 F. Supp. 815 (Ill. 1981) (interception of unauthorized telephone calls placed by a police officer upheld as lawful where the police officer had advance notice that unauthorized telephone calls were monitored).

An individual who places a tap on his telephone, therefore, may be acting within the law under an "implied consent" theory depending on the interest he seeks to protect and the adequacy of the advance notice of possible interception he provides to all users of the telephone. Any determination of the legality of a telephone tap under an implied consent theory would turn on the individual facts of a given case.

In conclusion, it should be noted that more stringent limitations on wire interceptions in state laws are not affected by the above discussed exception. The federal law was meant to supplement, not supplant, state law. Finally, federal regulations prohibit the private use of certain radio devices to intercept or record private conversations without the consent of all parties. See 47 C.F.R. 2.701 and 15.11. (Attached)

*/ Inasmuch as the issue presented did not involve a domestic relations dispute, the extraordinary situation of the interception of spousal communications was not discussed.

47 CFR

(1963)

Chapter I—Federal Communications Commission

§ 2.803

Date	Citations	Subject
1954	8 UST 178; TIAS 3756.....	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at Montreal June 14, 1954. Entered into force Dec. 12, 1956.
1961	13 UST 2105; TIAS 5170.....	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at Montreal June 21, 1961. Entered into force July 17, 1962.
1962	26 UST 2374; TIAS 8162.....	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at Rome Sept. 7, 1962. Entered into force Sept. 11, 1975.
1968	19 UST 7963; TIAS 6805.....	Protocol on the Authentic Trilingual Text of the Convention on International Civil Aviation (TIAS 1591). Done at Buenos Aires Sept. 24, 1968. Entered into force Oct. 24, 1968.
1969	20 UST 718; TIAS 6881.....	Process-Verbal Rectification to the Protocol of Sept. 24, 1968, on the Authentic Text of the Convention on International Civil Aviation (Chicago, 1944). Done at Washington April 8, 1969. Entered into force April 8, 1969.
1971	24 UST 1019; TIAS 7618.....	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at New York March 12, 1971. Entered into force Jan. 18, 1973.
1971	26 UST 1061; TIAS 8092.....	Protocol Amending Article 56 of the International Civil Aviation Convention (TIAS 1591). Done at Vienna July 7, 1971. Entered into force Dec. 19, 1974.

Subpart H—Prohibition Against Eavesdropping

§ 2.701 Prohibition against use of a radio device for eavesdropping.

(a) No person shall use, either directly or indirectly, a device required to be licensed by section 301 of the Communications Act of 1934, as amended, for the purpose of overhearing or recording the private conversations of others unless such use is authorized by all of the parties engaging in the conversation.

(b) Paragraph (a) of this section shall not apply to operations of any law enforcement officers conducted under lawful authority.

[31 FR 3400, Mar. 4, 1966]

Subpart I—Marketing of Radio-frequency Devices

AUTHORITY: Sec. 302, 82 Stat. 290; 47 U.S.C. 302, unless otherwise noted.

SOURCE: 35 FR 7898, May 22, 1970, unless otherwise noted.

§ 2.801 Radiofrequency device defined.

As used in this part, a radiofrequency device is any device which in its operation is capable of emitting radiofrequency energy by radiation, conduction, or other means. Radiofrequency devices include, but are not limited to:

(a) The various types of radio communication transmitting devices described throughout this chapter.

(b) The incidental and restricted radiation devices described in Part 15 of this chapter.

(c) The industrial, scientific, and medical equipment described in Part 18 of this chapter.

(d) Any part or component thereof which in use emits radiofrequency energy by radiation, conduction, or other means.

§ 2.803 Equipment requiring Commission approval.

In the case of a radiofrequency device, which, in accordance with the rules in this chapter must be type approved, type accepted, or certificated prior to use, no person shall sell or lease, or offer for sale or lease (including advertising for sale or lease) or import, ship or distribute for the purposes of selling or leasing or offering for sale or lease, any such radiofrequency device, unless, prior thereto, such device shall have been type approved, type accepted or certificated as the case may be. *Provided, however,* That the advertising or display of a device, which has not been granted type approval, type acceptance, or certification, will not be deemed to be an offer for sale if such advertising contains, and the display is accompanied by, conspicuous notice worded as follows:

47 CFR

(1982)

§ 15.11

§ 15.11 Prohibition against eavesdropping.

(a) No person shall use, either directly or indirectly, a device operated pursuant to the provisions of this part for the purpose of overhearing or recording the private conversations of others unless such use is authorized by all of the parties engaging in the conversation.

(b) Paragraph (a) of this section shall not apply to operations of any law enforcement officers conducted under lawful authority.

[31 FR 3400, Mar. 4, 1966]

§ 15.25 Operating requirements: Incidental radiation device.

An incidental radiation device shall be operated so that the radio frequency energy that is emitted does not cause harmful interference. In the event that harmful interference is caused, the operator of the device shall promptly take steps to eliminate the harmful interference.

[40 FR 10675, Mar. 7, 1975]

Subpart B—Administrative Provisions

SOURCE: 40 FR 10675, Mar. 7, 1975, unless otherwise noted.

§ 15.32 Cross reference.

The provisions of Subpart J of Part 2 of this chapter shall apply to devices operating under this part.

§ 15.33 Marketing of an RF device.

A device subject to regulation under this part may be marketed only pursuant to the provisions of Subpart I of Part 2 of this chapter.

§ 15.34 Certification.

(a) When the rules in this part require a device to be certificated, application therefor shall be filed on FCC Form 731 pursuant to the procedures set out in Subpart J of Part 2 of this chapter.

(b) The application shall be accompanied by:

(1) Fees pursuant to Subpart G of Part 1 of this chapter.

(2) A technical report pursuant to § 15.44.

Title 47—Telecommunication

(3) An expository statement pursuant to § 15.45.

(4) Photographs pursuant to § 15.46.

(5) A report of measurements pursuant to the rules governing the particular device.

[28 FR 12521, Nov. 22, 1963, as amended at 41 FR 19948, May 14, 1976]

§ 15.35 Type approval.

When the rules in this part require a device to be type approved, application therefore shall be filed on FCC Form 731 pursuant to the procedures set out in Subpart J of Part 2 of this chapter.

[41 FR 19948, May 14, 1976]

§ 15.37 Submission of equipment for testing.

(a) An applicant for, or a grantee of, an equipment authorization for a device subject to regulation under this part, shall make such a device available to the Commission for testing upon reasonable request.

(b) Such devices will be tested to verify data submitted by the applicant or grantee and/or to verify that devices being marketed under an equipment authorization continue to comply with the applicable regulations in this part.

(c) Expenses involved in shipping the device to the Commission and in its return shall be borne by the applicant for, or grantee of, the equipment authorization.

§ 15.38 Description of measurement facilities.

(a) Each person making measurements to be filed with an application for certification of a device subject to regulations under this part, shall file a description of his measurement facilities with the Commission.

(b) The description shall include the following information:

(1) Location of the test site.

(2) Physical description of the test site accompanied by photographs 8" by 10" in size. Smaller photographs may be submitted if they clearly show the required details and are mounted on full size sheets of paper.

(3) Drawing showing the dimensions of the site, the physical layout of sup-



U.S. Department of Justice
Office of the Associate Attorney General

December 27, 1983

16 J Roberts

NOTE

TO: John Roberts

FM: George H. Bohlinger, III

[Handwritten signature]

As per our telephone conversation on Friday,
December 23, 1983.

Attachment



U.S. Department of Justice

Office of the Associate Attorney General

Drug Task Force Administrative Unit

Washington, D.C. 20530

December 23, 1983

TO: George H. Bohlinger, III
Deputy Associate Attorney General

FROM: Virginia Junewicz *VJ*

SUBJECT: Federal Prohibitions Against a Private Individual Recording
His Telephone Calls

This memorandum addresses your question of whether there is any federal prohibition against a private individual recording all his incoming telephone calls. The short answer is that, under federal law, a person who is a party to a telephone conversation has lawful authority to record, or permit another to record, the contents of his conversation for any legitimate purpose. 18 U.S.C. §2511(2)(d). This does not necessarily mean, however, that an individual is legally permitted to "tap" his telephone.

The primary element critical to establishing the legality of intercepting and recording any telephone conversation under 18 U.S.C. §2511(2)(d) is the consent of a party to the conversation to the interception. Where one of the parties consents, the interception is lawful. The case of a tap on a telephone used by persons unaware of the tap's existence presents a problem in that conversations may be intercepted between parties who have not given their consent to such interception. In such cases, the interception is unlawful.

The intent of Congress in enacting criminal sanctions against wiretapping was to establish "a blanket prohibition against the interception of any wire communications." S. Rep. No. 1097, 90th Cong., 2d Sess. 91-92 (1968). (emphasis added). Congress articulated only five exceptions to this blanket prohibition and the sole exception relevant here requires that a party to the conversation consent to the interception. The legislative history of Section 2511(2)(d) indicates that this consent may be "expressed" or "implied." S. Rep. No. 1097, supra, p. 94. Express consent requires no elaboration. From an examination of the legislative history, it appears that implied consent will be found in the case of wire interceptions where the interceptor (i) has a sufficient interest to be protected, and (ii) provides advance notification of the possible interception to users of the telephone (i.e., those persons who are deemed to be "impliedly consenting"), thereby destroying any expectation of privacy on their part. See Jandak v. Village of Brookfield, 520 F. Supp. 815 (Ill. 1981) (interception of unauthorized telephone calls placed by a police officer upheld as lawful where the police officer had advance notice that unauthorized telephone calls were monitored).

An individual who places a tap on his telephone, therefore, may be acting within the law under an "implied consent" theory depending on the interest he seeks to protect and the adequacy of the advance notice of possible interception he provides to all users of the telephone. Any determination of the legality of a telephone tap under an implied consent theory would turn on the individual facts of a given case.

In conclusion, it should be noted that more stringent limitations on wire interceptions in state laws are not affected by the above discussed exception. The federal law was meant to supplement, not supplant, state law. Finally, federal regulations prohibit the private use of certain radio devices to intercept or record private conversations without the consent of all parties. See 47 C.F.R. 2.701 and 15.11. (Attached)

*/ Inasmuch as the issue presented did not involve a domestic relations dispute, the extraordinary situation of the interception of spousal communications was not discussed.

47 CFR

C1962

Chapter I—Federal Communications Commission

§ 2.803

Date	Citations	Subject
1954	8 UST 179; TIAS 3756	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at Montreal June 14, 1954. Entered into force Dec. 12, 1956.
1961	13 UST 2105; TIAS 5170	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at Montreal June 21, 1961. Entered into force July 17, 1962.
1962	28 UST 2374; TIAS 6162	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at Rome Sept. 7, 1962. Entered into force Sept. 11, 1975.
1968	19 UST 7963; TIAS 6805	Protocol on the Authentic Trilingual Text of the Convention on International Civil Aviation (TIAS 1591). Done at Buenos Aires Sept. 24, 1968. Entered into force Oct. 24, 1968.
1969	20 UST 718; TIAS 6881	Process-Verbal Rectification to the Protocol of Sept. 24, 1968, on the Authentic Text of the Convention on International Civil Aviation (Chicago, 1944). Done at Washington April 8, 1969. Entered into force April 8, 1969.
1971	24 UST 1019; TIAS 7515	Protocol Amending the International Civil Aviation Convention (TIAS 1591). Done at New York March 12, 1971. Entered into force Jan. 18, 1973.
1971	26 UST 1081; TIAS 8092	Protocol Amending Article 56 of the International Civil Aviation Convention (TIAS 1591). Done at Vienna July 7, 1971. Entered into force Dec. 19, 1974.

Subpart H—Prohibition Against Eavesdropping

§ 2.701 Prohibition against use of a radio device for eavesdropping.

(a) No person shall use, either directly or indirectly, a device required to be licensed by section 301 of the Communications Act of 1934, as amended, for the purpose of overhearing or recording the private conversations of others unless such use is authorized by all of the parties engaging in the conversation.

(b) Paragraph (a) of this section shall not apply to operations of any law enforcement officers conducted under lawful authority.

[31 FR 3400, Mar. 4, 1966]

Subpart I—Marketing of Radio-frequency Devices

AUTHORITY: Sec. 302, 82 Stat. 290; 47 U.S.C. 302; unless otherwise noted.

SOURCE: 35 FR 7898, May 22, 1970, unless otherwise noted.

§ 2.801 Radiofrequency device defined.

As used in this part, a radiofrequency device is any device which in its operation is capable of emitting radiofrequency energy by radiation, conduction, or other means. Radiofrequency devices include, but are not limited to:

(a) The various types of radio communication transmitting devices described throughout this chapter.

(b) The incidental and restricted radiation devices described in Part 15 of this chapter.

(c) The industrial, scientific, and medical equipment described in Part 18 of this chapter.

(d) Any part or component thereof which in use emits radiofrequency energy by radiation, conduction, or other means.

§ 2.803 Equipment requiring Commission approval.

In the case of a radiofrequency device, which, in accordance with the rules in this chapter must be type approved, type accepted, or certificated prior to use, no person shall sell or lease, or offer for sale or lease (including advertising for sale or lease) or import, ship or distribute for the purposes of selling or leasing or offering for sale or lease, any such radiofrequency device, unless, prior thereto, such device shall have been type approved, type accepted or certificated as the case may be. *Provided, however,* That the advertising or display of a device, which has not been granted type approval, type acceptance, or certification, will not be deemed to be an offer for sale if such advertising contains, and the display is accompanied by, conspicuous notice worded as follows:

47 CFR

(1982)

§ 15.11

§ 15.11 Prohibition against eavesdropping.

(a) No person shall use, either directly or indirectly, a device operated pursuant to the provisions of this part for the purpose of overhearing or recording the private conversations of others unless such use is authorized by all of the parties engaging in the conversation.

(b) Paragraph (a) of this section shall not apply to operations of any law enforcement officers conducted under lawful authority.

[31 FR 3400, Mar. 4, 1966]

§ 15.25. Operating requirements: Incidental radiation device.

An incidental radiation device shall be operated so that the radio frequency energy that is emitted does not cause harmful interference. In the event that harmful interference is caused, the operator of the device shall promptly take steps to eliminate the harmful interference.

[40 FR 10675, Mar. 7, 1975]

Subpart B—Administrative Provisions

SOURCE: 40 FR 10675, Mar. 7, 1975, unless otherwise noted.

§ 15.32 Cross reference.

The provisions of Subpart J of Part 2 of this chapter shall apply to devices operating under this part.

§ 15.33 Marketing of an RF device.

A device subject to regulation under this part may be marketed only pursuant to the provisions of Subpart I of Part 2 of this chapter.

§ 15.34 Certification.

(a) When the rules in this part require a device to be certificated, application therefor shall be filed on FCC Form 731 pursuant to the procedures set out in Subpart J of Part 2 of this chapter.

(b) The application shall be accompanied by:

(1) Fees pursuant to Subpart G of Part 1 of this chapter.

(2) A technical report pursuant to § 15.44.

(3) An expository statement pursuant to § 15.45.

(4) Photographs pursuant to § 15.46.

(5) A report of measurements pursuant to the rules governing the particular device.

[28 FR 12521, Nov. 22, 1963, as amended at 41 FR 19948, May 14, 1976]

§ 15.35 Type approval.

When the rules in this part require a device to be type approved, application therefore shall be filed on FCC Form 731 pursuant to the procedures set out in Subpart J of Part 2 of this chapter.

[41 FR 19948, May 14, 1976]

§ 15.37 Submission of equipment for testing.

(a) An applicant for, or a grantee of, an equipment authorization for a device subject to regulation under this part, shall make such a device available to the Commission for testing upon reasonable request.

(b) Such devices will be tested to verify data submitted by the applicant or grantee and/or to verify that devices being marketed under an equipment authorization continue to comply with the applicable regulations in this part.

(c) Expenses involved in shipping the device to the Commission and in its return shall be borne by the applicant for, or grantee of, the equipment authorization.

§ 15.38 Description of measurement facilities.

(a) Each person making measurements to be filed with an application for certification of a device subject to regulations under this part, shall file a description of his measurement facilities with the Commission.

(b) The description shall include the following information:

(1) Location of the test site.

(2) Physical description of the test site accompanied by photographs 8" by 10" in size. Smaller photographs may be submitted if they clearly show the required details and are mounted on full size sheets of paper.

(3) Drawing showing the dimensions of the site, the physical layout of sup-

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON 25, D. C.

In the Matter of
Use of Recording Devices in Connection }
with Telephone Service } DOCKET No. 6787

March 6-24, 1947

Ray A. Brown and John T. Quisenberry, on behalf of the Bell System companies; *A. K. Mitchell*, on behalf of the Western Union Telegraph Co.; *D. J. P. Strother*, on behalf of the Bluefield Telephone Co.; *Norman S. Case*, on behalf of the United States Independent Telephone Association; *Eliot C. Lovett*, on behalf of the Soundscriber Corp.; *Andrew G. Haley*, on behalf of Thomas A. Edison, Inc.; *Charles H. Tuttle and Wm. L. Hanaway*, on behalf of Dictaphone Corp.; *W. H. Taylor, Jr.*, on behalf of Frederick Hart & Co.; *Frederick G. Hamley*, on behalf of the National Association of Railroad and Utilities Commissioners and the Wisconsin Public Service Commission; and *Benedict P. Cottone, Harold J. Cohen and P. W. Valicenti*, on behalf of the Federal Communications Commission.

REPORT OF THE COMMISSION

HISTORY OF THE PROCEEDING

This proceeding was initiated by the Commission by an order dated October 31, 1945. The order provided for a general investigation into the matter of the use of recording devices in connection with interstate and foreign message toll telephone service and facilities.¹ It was recited in the order that various telephone carriers, which are subject to the Communications Act of 1934, as amended, have regulations in presently effective tariff schedules on file with the Commission, which appear to prohibit the use of recording devices in connection with interstate and foreign message toll telephone service or facilities. It was further recited that various problems are thereby presented as to the application of the Communications Act; as to the application of the above tariff regulations; and as to the effects of the use of recording devices on the privacy and quality of telephone service.

¹ It should be noted that this proceeding is concerned only with sound recorders, as distinguished from facsimile or other kinds of recording devices.

It was stated in the order of October 31, 1945, that without in any way limiting the scope of the investigation, it should include the following specific matters:

(1) The nature and extent of the need and demand for the use of recording devices in connection with interstate and foreign message toll telephone service;

(2) The extent to which the use of recording devices might impair the privacy and quality of interstate and foreign message toll telephone service;

(3) Whether suitable devices or methods can be effectuated to indicate to a user of interstate or foreign message toll telephone service or facilities that a recording device is being employed in connection with his use thereof;

(4) The lawfulness, under the Communications Act of 1934, as amended, of the above-mentioned tariff regulations;

(5) Whether the Commission should prescribe a tariff regulation governing the use of recording devices in connection with interstate and foreign message toll telephone service, and, if so, the kind of tariff regulation that should be prescribed;

(6) The relationships, if any, of the use of such recording devices to section 605 of the Communications Act of 1934;

(7) Whether any further legislation is necessary with respect to the use of recording devices in connection with telephone service and facilities;

(8) Whether recording devices are presently being used in connection with interstate and foreign message toll telephone service and facilities in violation of applicable and effective tariffs on file with this Commission.

By the order, all telephone carriers subject to the Communications Act of 1934, as amended, were made parties respondents in the proceeding. Copies of the order were required by its terms to be served, and were served, on all such carriers, and on the National Association of Railroad and Utilities Commissioners, the agency of each State having regulatory jurisdiction with respect to telephone service, the United States Independent Telephone Association, and various manufacturers of recording devices.

On November 29, 1945, the Commission, by order, authorized any State commission or other agency having regulatory jurisdiction with respect to telephone service to participate fully as a party intervenor in any proceedings herein. By other orders, the Commission granted petitions for leave to intervene in the proceeding on behalf of the National Association of Railroad and Utilities Commissioners, the

11 F. C. C.

United States Independent Telephone Association, and certain manufacturers of recording devices, namely, the Soundsciber Corp., the Dictaphone Corp., Thomas A. Edison, Inc., and Frederick Hart & Co.

The Commission's telephone committee, composed of Commissioners Walker, Wakefield, and Durr, was duly authorized to conduct the proceedings herein. Public hearings were held on January 10 and 11, 1946, before two members of this committee, Commissioners Walker and Durr. At the hearings, presentations were made by the Bell System Telephone companies, the United States Independent Telephone Association, and the intervening manufacturers of recording devices, and a brief statement of position was made on behalf of the National Association of Railroad and Utilities Commissioners and the Wisconsin Public Service Commission. Subsequent to the hearings, briefs and proposed findings of fact and conclusions of law were filed by the Bell System companies, the United States Independent Telephone Association, and the intervening manufacturers. On August 6, 1946, the Commission adopted a proposed report which was issued on August 8, 1946. In the proposed report, the Commission invited the State commissions, the telephone companies, and the recorder manufacturers to file exceptions and comments with respect thereto. Exceptions and comments were filed by the parties and by the California Railroad Commission. Oral argument was presented before the Commission *en banc* on October 18, 1946.

NATURE OF TELEPHONE RECORDING DEVICES

Devices to record telephone conversations have been the subject of experimentation for over 30 years, directed toward the achievement of more efficiency and accuracy in recording than was possible through written recordings by the parties to the conversation, or a stenographer listening in for the purpose. The workability of such devices for commercial use was largely the result of the development of the vacuum tube, which made it possible to amplify the conversation, and to equalize its strong and weak portions, so that a clear recording could be obtained. Modern telephone recorders are electronic devices for picking up electric signals from the telephone line, amplifying them through vacuum tubes, and recording them on cylinders, disks, belts, or wires. The power to operate the recorder is obtained from the electric power or light circuit on the user's premises. By such devices, an entire telephone conversation can be recorded.

In order to record a telephone conversation the recorder must, of course, be used in some manner in connection with the telephone circuit. There are three methods for accomplishing this, namely, the acoustic, the inductive, and the direct physical connection.

11 F. C. C.

The acoustic method consists essentially of placing a microphone, which is connected with a recorder, in sufficient proximity to the telephone instrument to pick up through sound waves the telephone conversation. An early form of telephone recorder employed this method.³ This method has not proved very satisfactory both because of reception difficulties and interference with the use of the telephone caused by the required positioning of the acoustic equipment.

The usual methods for using a telephone recorder are by induction or direct physical connection, and there appears to be no necessity now for dealing with any other type. The inductive type can also be used by direct physical connection, and, conversely, the type that may be intended for use by a direct physical connection can also be used inductively.

In the inductive type, the signals are received by induction from the telephone instrument or line, without any direct wire connection between the recorder and the telephone equipment. This method of recording is accomplished through the use of an induction coil connected with the recorder, this coil being placed on or under a desk or table, in proximity to the telephone instrument or line to pick up energy from the inductive field of the telephone circuit. The use of this inductive method of "connection" can give satisfactory recording. Because of the negligible diversion of power from the telephone equipment, it is possible to use this method without causing any perceptible effect on the functioning of the telephone apparatus or the quality of the telephone service.

The physically connected method of recording is accomplished through a direct wire connection between the recorder and the telephone line or instrument, the connection usually being made to the bell box of the telephone instrument. This method is also satisfactory for recording telephone conversations. Again, there is no perceptible diversion of power from the telephone line. The connecting equipment can be designed to provide adequate isolation and protection so that breakdowns or maladjustments of such equipment, or of the recording device itself, will not cause interference with the operation and use of the telephone equipment.

In all three methods, a recording is made, on a wax cylinder, plastic disk, or by other means, depending upon the make of the recorder. If a written record of the recorded telephone conversation is desired, a transcription must be made, which means that some mechanism is required for playing back the recording. Thus the recording device manufacturers also make transcribing equipment. The cost of a device that

³ Such a form of recorder was developed by Thomas A. Edison, Inc. in 1915, and was called the Telescribe.

will record telephone conversations ranges from about \$280 to \$950, and the transcribing machines cost about \$200 more.

DEMAND AND NEED FOR TELEPHONE RECORDING DEVICES

Telephone recording devices have been in use to some extent since 1916. A substantial demand and use for such recording devices began, however, about the start of the period of World War II.

An engineer employed by the United States Army Signal Corps testified that the Signal Corps commenced using telephone recording devices in 1938. This appears to be the first Government use of recorders. According to this testimony, the first recorders used by the Signal Corps were installed primarily to record all incoming telephone toll calls, and were controlled by the War Department switchboard operators, who would give notice to the calling party that the conversation was being recorded. However, by 1940, the demand and use for such recording devices became so great that they were installed by the Signal Corps on individual telephone instruments and notice to the calling party was discontinued.³ By 1945 the Signal Corps had made available to the War Department approximately 2,000 recording devices. After the cessation of hostilities on VJ-day, the Signal Corps continued to use the recording devices, and requests continue for additional recorders by its personnel.

Recording devices have been used by the Signal Corps for the transmission of figures and involved data which otherwise would have been handled by post or other slower communication means. An analysis of thousands of requests for recording devices received by the War Department from its personnel indicated that telephone communications were better than any other form of communication where speed is required, but without the use of recording devices, were not sufficiently accurate when details and figures are transmitted; stenographic recording of telephone communications is not sufficiently accurate, and there are only a limited number of qualified stenographers who can accurately record an ordinary telephone conversation in shorthand. In addition, stenographic recording is expensive, and unless a special monitoring equipment is employed, the quality of the telephone transmission is impaired because of the drain on the circuit when an extension telephone is used.

The Navy Department forwarded to the Commission a statement of its position and interest in this proceeding, and it requested that such

³ Under date of July 12, 1946, a War Department memorandum was issued in which it was stated:

"Although the usefulness of telephone recording machines is recognized in expediting the conduct of business, no officer or employee of the Army will make such recordings unless he informs the other party participating in the telephone conversation that a recording is being made."

statement be made part of the record herein. It appears from this statement that the Navy Department has been a very large user of recording devices since the start of World War II. At the end of 1945 there were over 1,600 recorders in use in the naval shore establishments of the continental United States. The principal Navy uses of recorders are at navy yards, supply offices, material inspection services, clothing depots, naval ordnance plants, air stations, and security units. The Navy Department states that the primary usefulness of the recording devices is in two respects:

(1) The preservation of confirmatory records of the details of contracts, purchase orders, inventories, and other important aspects of procurement and production functions; and

(2) The preservation of permanent records of operational orders and plane dispatching and landing instructions, the latter being an essential adjunct of safety in air navigation.

It is stated further that the basic authority for the use of recording devices in the Navy is derived from Navy Regulations, article 2013, which provides:

Where official business is conducted by telephone or orally, the substance of any communication or order that should be made a matter of record shall be reduced to writing without unnecessary delay.

In respect to this regulation, the statement of the Navy Department is that "recorders have proven the most efficient and economical means of attaining accuracy and completeness in complying with the direction." By way of conclusion, the Navy Department stated:

Recording devices are one of the most valuable, modern administrative aids in the conduct of the affairs of the Navy Department. They greatly increase the areas of usefulness of telephonic communication, thus promoting both efficiency and economy.

Commercial sales of telephone recording devices also increased materially during the period from 1942 to 1945, even though orders for recording devices were subject to War Production Board priorities during this period.⁴ Virtually all sales during this period were made to the Navy and War Departments, and war plants.⁵ Three large manufacturers of recording devices estimated that a total of about 19,000 of their telephone recorder instruments were in present use in the United States. Approximately 5,700 of such devices were sold to the Army and Navy Departments and the remainder to various business organizations. The wartime experience gained with telephone recording devices has resulted in an unprecedented commercial demand since VJ-day.

⁴ The War Production Board permitted the manufacture of recording devices during the war period, although it temporarily stopped the manufacture of standard dictating machines.

⁵ A witness for the Dictaphone Corp. defined "war plants" as those plants engaged in the production of war materials under contracts with the United States Government.

One manufacturer had 948 unfilled civilian orders in the United States and 296 unfilled orders in 14 foreign countries as of January 1, 1946,⁶ although for the first 11 months of 1945, it had delivered 1,362 recorders for civilian use. Even under the present somewhat restricted manufacturing conditions, this manufacturer estimated that it would deliver approximately 4,000 recorders during 1946. Another manufacturer found that the demand as of January 1, 1946, was about three times as great as it was during the war.

It was shown by the manufacturers that telephone recording devices are used for many commercial purposes and by many different types of users. Examples of the types of the commercial use of recording devices compiled by the manufacturers included recording of orders telephoned in by salesmen; technical specifications; negotiations regarding the details of purchase contracts; railroad reports of freight loadings, accidents, delays, and breakdowns; sales reports from representatives and branch officers; orders for perishable goods from fieldmen for immediate delivery; long-distance telephone conferences; news calls to newspapers and news agencies; specification changes made by naval and Army representatives; calls concerning insurance binders and adjustments by insurance representatives, and details with respect to claims and adjustments; weather reports by steamship companies; credit information by banks and other financial institutions; and messages for delivery to a person called during his absence. A partial list of users of telephone recording devices, introduced in evidence by the manufacturers, included attorneys, auditors, doctors, engineers, banks, food processors, insurance companies and brokers, hospitals, printers, manufacturers, meat packers, newspapers, railroads, bus companies, and welfare and trade associations. Bell System companies have made only two installations of recording devices, both for newspapers, the first one of these being made in 1936, and both being in operation today.

It was contended by the recorder manufacturers that use of the recording devices makes available accurate records of telephone conversations involving the transmission of complicated details and figures with all the advantages of the speed of telephony. Among other things, this enhances the usefulness of long-distance telephone service. Present commercial and industrial use of recording devices also tends to reduce the length of telephone conversation because of the elimination of the need for repetition usually required when details and figures are handled over the telephone. It appears that telephone recorders are used for all types of calls, local exchange, intrastate and interstate toll, and over-

⁶ One company sold approximately 500 recorders in England before the war, where recorders have been in use since 1934. During the period from 1930 to 1945, the same manufacturer sold 1,477 telephone recording devices in 39 foreign countries.

seas toll. It was indicated that the likelihood of the use of recorders increases with the distance covered by the call, since the cost of the call to the user tends to increase with the distance involved, and it is therefore more important that the message be received accurately on the first call.

The need for the recording of important telephone conversations involving detailed information and data has been recognized by the establishment of recording methods other than electronic recorders. The telephone conversation is, in many instances, recorded by a stenographer listening to the conversation over an extension telephone and taking shorthand notes thereof. Such type of recording is in general use in commercial business, and various Bell System companies have tariff provisions on file with State regulatory bodies, offering special equipment and facilities to facilitate the stenographer's shorthand recording of telephone conversation.⁷ In the typical Bell System tariff covering such equipment, it is stated that the apparatus is connected to the telephone line "to enable a second person to listen in (generally for the purpose of recording the conversation)." It was estimated by the Bell System that there were approximately 3,600 such devices in service throughout the system. As previously indicated, however, there are serious flaws in the usefulness of stenographic recordings of telephone conversations. Thus, such recordings may be unreliable because of incompleteness or other errors. In addition, the use of an extension telephone to make a stenographic record of a telephone conversation, without an adequate monitoring device, impairs the quality of the telephone call inasmuch as the use of the extension telephone drains power from the telephone line.

PERTINENT TARIFF REGULATIONS

Six Bell Telephone companies and one non-Bell company have tariff regulations on file with the Commission with respect to interstate and foreign message toll telephone service which are construed by the companies as barring the use of any recording devices in connection with such service unless the devices are furnished or specifically authorized by the particular telephone company.⁸ These tariff regulations are gen-

⁷ Earphones are provided by which the stenographer can, while listening to a telephone call, take shorthand notes of the conversation. The earphones are connected to the telephone line by means of a jack, popularly known as a listening-in jack. The jack can be placed at a point remote from the telephone and the earphones can be plugged into the jack. A high impedance connection is made so as not to drain the line as much as would an equivalent extension telephone.

⁸ The explanation was given that these six Bell companies filed such tariff regulations with the Commission to forestall any question as to whether these tariffs or their exchange tariffs would apply, but this same consideration would appear to have applied also to the other Bell companies which did not make such filings.

erally referred to as the "foreign attachment" provisions. One form of such tariff regulation, filed by the Bell Telephone Co. of Pennsylvania and the Diamond State Telephone Co., reads as follows:

Equipment, apparatus, and lines furnished by the telephone company shall be carefully used and no equipment, apparatus or lines not furnished by the telephone company shall be attached to, or used in connection therewith, unless specifically authorized in this tariff. When equipment, apparatus or lines furnished by the customer or subscriber are used in connection with equipment, apparatus or lines furnished by the telephone company, the equipment, apparatus, and lines furnished by the customer or subscriber must be connected solely with the telephone company's system. Any equipment furnished by the telephone company shall remain the property of the telephone company and upon termination of service for any cause whatsoever be returned to it, in good condition, reasonable wear and tear thereof excepted.

Another form of tariff regulation, filed by the four Chesapeake and Potomac Telephone companies, and the Bluefield Telephone Co., provides:

Customers shall not use or permit to be used any electrical or mechanical apparatus or device in connection with the service or facilities furnished by the telephone company without the written consent of the telephone company, or permit the attachment of advertising devices, except upon approval of the telephone company. In case any instrument, apparatus, or device of any kind other than that furnished or approved by the telephone company is attached to or connected with any part of the telephone company's property, the telephone company reserves the right to remove such instrument, apparatus, or device or to deny service so long as such instrument, apparatus, or device is so attached or connected, or to terminate the service.

The Bell System companies also have similar provisions in their interstate private line telephone service tariffs on file with this Commission. In addition, three Bell companies, the Diamond State Telephone Co., Northwestern Bell Telephone Co., and the Mountain States Telephone and Telegraph Co., have such provisions in their tariffs on file with this Commission covering interstate telephone exchange service in Delaware, Iowa, and Texas, respectively, where there is no State telephone regulatory agency.

The Bell companies have presented evidence to the effect that all Bell companies have "foreign attachment" provisions in their intrastate telephone exchange service tariffs.

The above tariff regulations were intended to prohibit any kind of attachment to the telephone company's facilities unless furnished or authorized by the telephone company and, according to the Bell companies, were not established with telephone recording devices specifically in mind. In the brief filed by the Bell System companies, the following statement is made (pp. 2-3):

The foreign attachment regulations antedate telephone recording devices by many years and have been uniformly approved by the courts and regulatory commissions which have had occasion to pass upon them.⁶ They are designed primarily to protect telephone service in other ways, but lend themselves to the preservation of privacy by prohibiting recording devices.

So far as the record shows, no Bell System company has ever expressly authorized or furnished telephone recording devices, with the exception that recording devices have been furnished and installed by Bell System company for two newspapers. The first of these installations was made in 1936, and both have been in regular use since 1940. The arrangements therefor are carried out under contract, and are not shown in filed tariffs.

BASIS FOR THIS PROCEEDING

The problems which gave rise to this proceeding are the result of the conflict between the presently effective telephone tariff provisions and the present and potential demand for the use of telephone recording devices. As previously indicated, this matter became acute because of the widespread use of such devices during and since World War II. The Bell System companies withheld enforcement of the pertinent tariff regulations during the war since it was indicated that the recording devices were being used in war activities. With the termination of hostilities, however, the question of the status of these devices is presented.

POSITION OF THE PARTIES

There was no direct opposition in this proceeding to the use of telephone recording devices. The principal point of controversy appeared to be the matter of the conditions under which such use should be authorized.

The Bell companies state that they recognize that there are legitimate uses of recorders and understand the desire of those to whose needs they are specially adapted to use them on their lines, but that they also recognize that because of their very nature, recorders on telephone lines

⁶ *N. E. Tel. & Tel. Co. v. Department of Public Utilities*, 262 Mass. 137 159 N. E. 743; *Gardner v. Providence Tel. Co.*, 23 R. I. 262, 49 Atl. 1004; *City of Los Angeles v. Southern California Tel. Co.*, 2 P.U.R. (N.S.) 247 (California); *Hotel Sherman v. Chicago Tel. Co.*, P.U.R. 1915 F,776 (Illinois); *Re Farmers Fountain Tel. Co.*, P.U.R. 1926 C,363 (Illinois); *Re Customers of the Concordia Tel. Co.*, 3 P.U.R. (N.S.) 522 (Missouri); *Quick Action Collection Co. v. N. Y. Tel. Co.*, P.U.R. 1920 D,137 (New Jersey); *Application of State Agricultural and Industrial School*, 4 N.Y. P.S.C.R. (2nd Dist.) 219; *Newton v. Jamestown Telegraph Corp.* 6 P.U.R. (N.S.) 27 (New York); *King v. Pacific Tel. & Tel. Co.*, 16 P.U.R. (N.S.) 348 (Oregon); *Pa. P.U.C. v. Bell Tel. Co. of Pa.*, 20 Pa. P.U.C. 702; *In re Telephone Companies*, P.U.R. 1915 A,1032 (South Dakota); *Department of Public Works v. Montauk Tel. Co.*, P.U.R. 1925 A,676 (Washington); *In re Rates of the Peoples Tel. Co.*, P.U.R. 1923 C,374 (Wisconsin)."

are subject to serious abuse and endanger the privacy and informality of telephone conversations in a way in which they have never been endangered before. These companies stress the desirability of the preservation of privacy in telephone conversations, and their approach to the problem of the treatment to be given telephone recorders is permeated with this consideration. To quote from their brief (p. 6):

The telephone companies submit that the fundamental principle in solving the problem of the use of recorders in connection with telephone service is that any use without the full knowledge and consent of all parties to the conversation must be prohibited.

The Bell companies state as their position that with respect to exchange and message toll service, they "intend to revise their tariffs to provide for such use of recorders as will not invade the privacy of conversations, where there is sufficient demand for it," and that "prohibition of all other use of recorders on their lines will be enforced by the telephone companies to the best of their ability." They contend, regarding the preservation of privacy, which would be done through notification to the party at the other end of the line that his conversation may be recorded, that "the only practicable plan which they have been able to work out for general exchange and toll service requires that all calls to and from lines arranged for recording be manually operated and routed through a special switchboard position," and "after the connection is established the telephone company operator announces that the conversation may be recorded."

Although recognizing that the use of recording devices in connection with private line telephone service was not made an issue by the Commission's order instituting this proceeding, the Bell companies also gave their position on this matter, stating that "it has been concluded to permit them [recording devices] on private lines which have no access to the general exchange or toll telephone service, subject to the approval of the regulatory authorities." It is explained that "the conditions under which such private lines are used give reasonable assurance that those having access to them would know that their conversation might be recorded."

The Bell companies state further, as to the furnishing of the necessary equipment, that (Brief, p. 7):

Whether on private lines or under the operator announcement plan the recorder could be supplied by the subscriber. The Bell System has no present plans to enter into the general manufacture and sale of telephone recorders. However, if sufficient demand for telephone company owned recorders, supplied on a rental basis, should arise, the telephone companies would probably meet it. The telephone companies would, however, insist, in order to protect the telephone service, that the device

by which the recorder is connected to the telephone circuit be furnished, installed and maintained by the telephone companies.

The Bell companies also argue that the Commission should issue a report presenting the problem and announcing principles on which all regulatory authorities might agree, but that it should issue no order herein. The contentions advanced to support this argument are (1) the Commission has no jurisdiction to make an order regulating the use of recorders because such an order would regulate intrastate service, contrary to sections 2 (b) (1) and 221 (b) of the Communications Act, and (2) the use of recording devices is predominantly a problem for the States because telephone calls are so largely intrastate, and intrastate and interstate calls are commingled.

The United States Independent Telephone Association took a position similar to that taken by the Bell System, with the qualification, however, that the "operator-announcement" plan proposed by the Bell System would be so expensive as to "be prohibitively burdensome to smaller telephone companies." In its exceptions to the proposed report, and at the oral argument, the Association contended that no final order of the Commission on this matter should be made effective until the telephone industry and the Commission have, by an engineering conference or otherwise, found a satisfactory warning device, if the Commission found finally that a warning device constituted sufficient notice to users that a telephone recorder was being used.

The position taken by the manufacturers of the telephone recording devices may be summed up as follows: That such devices are in extensive use and in great demand for entirely legitimate governmental and commercial purposes; that their use is hampered, if not prevented, by present tariff restrictions; that their use does not impair either the privacy or the quality of telephone service; that their use enhances the usefulness of telephone service; that the "operator-announcement" plan proposed by the Bell System is too cumbersome and expensive; that suitable notification to users indicating the use of a recording device can be otherwise effectuated; that the telephone companies' "foreign attachment" tariff regulations on file with the Commission are unjust and unreasonable, and therefore unlawful under the Communications Act; and that the Commission has jurisdiction to, and should, prescribe a tariff regulation authorizing the use of telephone recording devices in connection with interstate and foreign message toll telephone service.

The National Association of Railroad and Utilities Commissioners has submitted suggestions, but it has taken no position on any of the matters in question here. Regarding the matter of the Commission's jurisdiction, the Association directed attention to the large proportion of intrastate

and exchange telephone calls, and stated that the Commission should not enter any order in this case which would directly or indirectly impair complete freedom of action by the State Commissions to regulate telephone facilities while being used for intrastate toll and exchange service. The association further stated that the Commission should not enter any order herein which would permit anyone other than the telephone company physically to connect any device to existing telephone lines; or which would authorize the use of recording devices requiring physical connection to telephone lines, unless the device is so arranged that the telephone user can make a complete physical disconnection of the device while using the telephone facilities for intrastate toll or exchange purposes. In a letter of comment on the proposed report, it was noted that in view of the Commission regulation proposed, the association did not deem it necessary, at the time, to take a position on the question of jurisdiction, although this was not to be taken as an indication that the association necessarily agreed with the views respecting jurisdiction expressed in that report.

On behalf of the one State Commission which intervened, the Wisconsin Public Service Commission, the maintenance of privacy of telephone communications was stressed, and it was particularly noted that in the event recording devices are to be used, a warning device should be provided so that those participating in the call would know of such use. The California Railroad Commission, in its written statement of comment on the proposed report, suggested that the automatic warning signal should resemble the surface noise of a recording or transcription; that provision could be made for the subscriber to dial a particular telephone number in order to familiarize himself with the automatic signal; and that the directory information, instead of being an asterisk by the name of each subscriber with a recorder should be limited to an introductory page describing the use of recording devices and the automatic signal.

JURISDICTIONAL QUESTIONS

The Bell System companies raised certain jurisdictional questions, as indicated above, arguing that the Commission should issue no order herein. The Bell System does "not question the interest of the Commission in the use of recording devices or its jurisdiction to conduct this investigation." Indeed, it is stated in the Bell System's brief that (p. 32):

A report from this Commission which would present the problem and announce principles on which all regulatory authorities might agree would be invaluable in reaching a solution in the public interest. Substantial agreement of the regulatory authorities is of paramount importance. If it can be achieved, and there is no

apparent reason for believing it cannot, difficulties arising out of limitations of the Commission's jurisdiction will be avoided.

The Bell System companies argue that telephone recording devices, to be used, must be connected in some way with telephone facilities on subscribers' premises; that such telephone facilities are used jointly and indiscriminately for intrastate exchange and toll, and interstate toll, telephone services; and that the joint use of the telephone facilities in the various services and the "practical impossibility" of preventing recorders from being used in any of the services in which the telephone facilities are used, therefore mean that any regulation of recorders in interstate toll service would necessarily regulate their use in intrastate toll and exchange service as well. It is asserted that this situation raises the question of the Commission's jurisdiction under section 2 (b) (1) and 221 (b) of the Communications Act, which sections exclude the Commission from jurisdiction over intrastate communication service, and, under certain circumstances, over telephone exchange service.¹⁰ Characterizing the intrastate exemption in section 2 (b) (1) as more comprehensive, the argument proceeds in terms of this provision. It is contended that any order of the Commission requiring that the telephone companies permit, prohibit, or restrict the use of recording devices in connection with interstate toll service would affect intrastate service. It is asserted such an order would regulate facilities used in rendering the intrastate services by prescribing what could or could not be connected with them. It is stated to be the position of the Bell System that facilities which are used for both interstate and intrastate services are excluded from the Commission's jurisdiction as "facilities * * * for or in connection with intrastate communication," as that term is used in section 2 (b) (1) of the Communications Act. The Bell System concludes (Brief, p. 30):

It follows from what has been said that the jurisdiction of the Commission to make an order regulating the use of recorders is limited to use in connection with facilities which are exclusively interstate.

Upon consideration of the above argument, in the light of the facts and the relevant provisions of the Communications Act, the Commission

¹⁰ Section 2 (b) provides in part as follows:

"Subject to the provision of section 301, nothing in this act shall be construed to apply or to give the Commission jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service of any carrier. * * *

Section 221 (b) provides:

"Nothing in this act shall be construed to apply, or to give the Commission jurisdiction, with respect to charges, classifications, practices, services, facilities, or regulations for or in connection with wire telephone exchange service, even though a portion of such exchange service constitutes interstate or foreign communication, in any case where such matters are subject to regulation by a State commission or by local governmental authority."

is of the opinion that it clearly has jurisdiction to act with respect to the matter of the use of recording devices in connection with interstate and foreign message toll telephone service. The foregoing argument of the Bell System has obvious fallacies: It ignores entirely the basic grant of jurisdiction to this Commission over interstate and foreign communication by wire or radio (see Communications Act, secs. 1 and 2 (a)), and it pays no heed to the facts of operation of telephone recording devices.

The operating facts may well be considered first, since they also have a direct bearing on the factors mentioned by the National Association of Railroad and Utilities Commissioners. In fact, a practical distinction can be made between the use of recording devices on interstate, as against intrastate, calls. It is proposed, and we conclude reasonably so, that it be required that recording devices be used only when such devices are so constructed that at the will of the users, they can be physically connected to and disconnected from the telephone line, or switched on and off. In the case of the physically connected type of recorder, the connection can be effected by means of a plug-in jack arrangement¹¹ so that a disconnection can be made simply by pulling out the plug. The inductive type of recorder, which does not require a wire connection with the telephone line, must be switched on in some fashion to be used and hence can simply be switched off when its operation is not desired. Thus, there is no reason why a recording device which can be used in connection with an interstate or foreign telephone call must be used in connection with an intrastate call; on the contrary, users can easily limit the employment of recording devices to their interstate and foreign calls. Accordingly, State and other local regulatory authorities remain entirely free to deal as they see fit with the use of recording devices on intrastate calls. Whether, as the Bell System suggests, a user with a recording device will employ it on intrastate, as well as interstate and foreign calls, obviously depends on the position taken in the matter by the appropriate local authorities.

It may be commented further, however, that the Bell System argument ignores the real consideration that interstate and foreign message toll telephone service requires the use of facilities that are not "exclusively interstate." This service necessarily involves all the facilities, charges, classifications, practices, services, and regulations used in the rendition of the service, and regulation of such service must be able to deal with all or any of the matters so involved if it is to be effective. This is clearly the purport of the comprehensive common carrier provisions of the Communications Act. See *Matter of Hotel Surcharges*,

¹¹ As hereinafter found, the installation of the jack should, however, be made by the telephone company.

decided December 10, 1943, F.C.C. Docket No. 6255 (52 P.U.R. (N.S.) 141 (1943)); *Ambassador, Inc. v. United States*, 325 U.S. 317.¹²

The relative percentages of interstate and intrastate telephone calls cited by the Bell System in its argument also tend to give a distorted picture. Of course, intrastate calls far predominate numerically, interstate toll calls being, in the year 1944, only 1.3 percent of all calls (exchange and toll) and 25.6 percent of all toll calls, according to Bell System estimates. But behind these percentages were 359,000,000 interstate and foreign toll messages.

RECORDING DEVICES AND THE QUALITY OF TELEPHONE SERVICE

It is clear from the record that the use of recording devices is not detrimental to the quality of telephone service. The modern electronic recording device is so equipped as to cause no measurable drain on the telephone talking circuit, and so as to prevent a short circuit or other trouble in the device from impairing telephone service.

In the case, however, of recorders which are physically connected to the telephone circuit, it is necessary that the recorder be properly connected to the telephone line to protect against impairment of the telephone service. A faulty connection might reduce the efficiency of the circuit, thereby impairing transmission, or, being connected with the house current, impress on the circuit harmful voltages or currents which might be injurious to person or plant. The method of connection itself might cause trouble in the telephone circuit. Adequate connecting arrangements can be provided, however, and it is apparent from the record that the protection of the telephone service can be satisfactorily accomplished in the connection of recorders to the telephone lines.

Although the Bell System has specifically stated that it has no objection to a telephone user providing his own recording device, it does assert that since the connecting device is of primary importance to the telephone service and is a part of the telephone facilities, it is essential that it be furnished, installed, and maintained by the telephone companies, as are the rest of the telephone facilities. There was no disagreement on this point on the part of any of the parties. The Commission is of the opinion that the furnishing, installation, and maintenance of the necessary connecting device should be the responsibility of the telephone

¹² The Commission can hardly believe that at this late date in the history of Federal regulation, the Bell System is seriously attempting to remove practically all its facilities from the jurisdiction of this Commission, but the logical result of the above test proposed by it, "facilities which are exclusive interstate," would do just that. For example, it would logically follow from the Bell System argument that even though a facility were essential for the rendition of interstate and foreign message toll telephone service, it could be freely abandoned with impunity under the Communications Act so long as it was not an "exclusively interstate" facility. But see section 214 of the act and part 63 of the rules and regulations, governing discontinuances of service.

companies. This would mean that where a plug-in jack arrangement is to be used to connect the recorder to the telephone line, the jack installation should be furnished, installed, and maintained by the telephone companies. Where, however, an inductive recorder is to be used, there would appear to be no necessity for any equipment to be furnished, installed, or maintained by the telephone companies. The inductive recorder should be so constructed that when used for telephone recordings, it would not interfere in any way with the operation of the telephone circuit. The matter of the engineering standards that should be established to assure against any such interference is one of the matters that should be considered at the engineering conference the Commission will hold, as hereinafter set forth, to consider what technical requirements should be imposed in connection with the use of telephone recording devices.

One question raised by the recorder manufacturers is that sales demonstrations of their equipment to prospective customers would be hampered if they are required to have telephone company personnel make the connections of the equipment to the telephone line. This difficulty would, of course, not exist in the case of inductive recorders. As for the type involving a wire connection to the telephone line, we are of the opinion that it is more important to assure that such a connection be properly made, to prevent interference to telephone service, than that the sale demonstrations be made without hindrance. The telephone companies should, however, cooperate fully with the recorder organizations so that no unreasonable delays will occur in the connection of recorders for sales demonstrations, and the Commission will act promptly on any complaints against telephone companies in this respect.

RECORDING DEVICES AND THE PRIVACY OF TELEPHONE SERVICE

It has been previously observed that in this proceeding there has been no objection to the use of telephone recording devices as such. They have been recognized as being a modern and legitimate aid to government and commerce. The telephone companies have, however, emphasized the "right of privacy" in telephone communications, and urged that this "right" would be infringed by the use of telephone recorders without adequate notice to the parties that their conversation was being recorded. It has been stressed that in the interest of preservation of telephone privacy, the use of telephone recorders should be barred except where such notice is given. The recorder manufacturers, on the other hand, challenge the claim of the telephone companies to the existence of privacy in telephone conversations, pointing to the availability of extension telephones, party-line service, plug-in jacks, and monitoring devices, which make it possible for persons to listen in on a telephone

conversation without the knowledge of the parties.¹³ The manufacturers contend that no form of notification of the use of telephone recorders is necessary, since recorders will in all probability be limited to legitimate government and commercial use, and the users could be generally advised, through the medium of a general publicity program and information in the telephone directory, that recorders may be used. The manufacturers, however, would apparently have no objection to some kind of specific notice, although at least one, the Dictaphone Corp., indicated that a requirement of a mechanical warning signal would be objectionable "as impairing the coherence of telephone conversations and unduly annoying the conversers."

The Commission is of the opinion that the use of telephone recording devices should be permitted in connection with interstate and foreign message toll telephone service. These devices have been clearly shown on the record here as having a useful and legitimate place in the conduct of governmental and private business. The Commission is, however, keenly appreciative of the importance and desirability of privacy in telephone conversations. Such conversations should be free from any listening-in by others that is not done with the knowledge and authorization of the parties to the call, whether this be done by recording devices, extension telephones, monitoring devices, or any other means, and the Commission is prepared to take all steps within its authority to accomplish this objective. Accordingly, the Commission is firmly of the opinion that the use of telephone recording devices should be permitted only when measures are in effect to assure notification to the parties that their conversation is being recorded.

METHOD FOR NOTIFICATION OF USE OF TELEPHONE RECORDING DEVICES

At the hearing, there were discussed several methods for notification of the parties to a telephone conversation that recording devices were being used. These were as follows:

- (1) Automatic tone warning,
- (2) Automatic voice announcement.
- (3) Operator-announcement plan.
- (4) Directory listing plan.

These will be discussed in order.

Automatic tone warning.—The warning mechanism would operate whenever the recording device was being used, and it would superimpose

¹³ The telephone companies' answer to these instances is essentially that this is a matter of degree; that "even though in some other cases privacy has had to be sacrificed to a limited extent in order to furnish economical and efficient service to large classes of telephone subscribers, that does not justify further and more serious infringements upon the privacy of telephone conversations for the benefit of a few."

on the telephone conversation a distinct recurring signal, such as musical notes, at regular intervals of, say, about 15 seconds.¹⁴ This signal should be loud enough to be clearly heard, but at the same time, the signal should not unduly interfere with the conversation. The Bell System estimates that it would cost from \$25 to \$50 to manufacture this warning device. The Bell System argued that this warning was inadequate because the musical tone would not be self-explanatory and the general public could not be taught its significance.

Automatic voice announcement.—Under this method, the automatic warning would be by a voice announcement made by a record. A musical tone would be transmitted over the circuit at intervals of about 15 seconds, followed immediately by an announcement: "This conversation is being recorded." The Bell System points out, by way of objection to this method, that the announcement must be loud enough to be heard, which means it would interrupt the conversation for the time it required, about 3 seconds. Even if the text of the announcement were shortened, there would be substantial interference with the telephone call, the call would probably be lengthened, and charges to the user for the call thus increased.

Operator-announcement plan.—Under this plan the recorder is connected with a special telephone line which terminates at a special telephone company operator position. All incoming and outgoing calls involving this special subscriber line would be handled by the operator at the special position. The special operator would complete all calls and make an announcement to the other party, before the start of the conversation, that the special line is equipped with a voice recorder which may be used to record the conversation. The Bell System argues that this plan is the "only reasonably certain and efficient arrangement to secure adequate notice to telephone users that their conversations may be recorded."

It would appear to be possible for situations to occur where this plan, as elaborate as it is, might not result in a warning to the principal parties to the conversation, because one or the other, or both, were not on the line when the connection was first established. This might be the case, for example, on a station-to-station call initiated by others on behalf of either or both of the principal parties. This plan may be less certain in effect than the automatic warning recurring throughout the call.

¹⁴ It has been noted that the California Railroad Commission suggested that the warning signal should resemble the surface noise of a recording or transcription. The Bell System comments on this suggestion were to the effect that such a signal might not be sufficiently distinctive; also, that the signal would have to continue throughout the recording and would interfere with the recording and perhaps with the clarity of the telephone conversation.

The operator-announcement plan would also involve considerable expenditure for the installation and operation of additional subscriber lines and associated equipment for this special purpose. The additional operating cost to the customer for service under the plan was estimated to be \$5 monthly per line, based on a thousand calls per year and a substantial number of special recording lines. The U.S.I.T.A. also contends that this is the only method so far devised which would give adequate notification, but it alleges that the expense of this method would be prohibitively burdensome to smaller telephone companies. A further objection is that the requirement of handling all calls through the special operator, even those calls on which no recorder is to be used, would involve service delays. The alternative of a separate line for use only on calls to be recorded would add substantially to the subscriber's telephone costs.

Directory listing plan.—Under this plan, an asterisk or some other special indicator would be placed alongside the name of each subscriber who had a telephone recording device. This indicator would refer to a note of explanation at the bottom of the directory page.¹⁶ The Bell System criticizes this plan as affording no protection to persons called from a telephone at which there is a recorder; it does not cover the situation where recorders are installed after the publication of a directory; and many calls are made without reference to telephone directories, as, for example, from letterheads, advertisements, or long-distance calls from other cities.

CONCLUSIONS ON METHODS OF NOTIFICATION OF USE OF RECORDING DEVICES

Upon consideration of the above methods of notification, the Commission is of the opinion that a form of automatic tone warning, generally uniform throughout the United States, supplemented by appropriate publicity by both the telephone companies and the recorder manufacturers, should serve adequately to inform users of interstate and foreign message telephone toll service as to the use of recording devices in connection with such service. Any publicity program should make provision for the insertion of full page statements in the telephone directories informing the telephone using public of the nature and use of recording devices and describing in detail the operation and significance of the tone warning signal. In addition, the telephone companies can familiarize the public with the tone warning signal by making available a special telephone number which, when dialed or called, would reproduce the tone warning sound. Even if the publicity should not reach the particular user, a recurrent unusual sound should make him sufficiently

¹⁶ It is of interest to note that such a plan has been in use in England and Sweden.

suspicious to cause him to ascertain the reason therefor. Of course, the other party might attempt to deceive him as to the cause of the sound, but if the party would work such a deceit, he would presumably attempt to evade any safeguards intended to protect a telephone user against the use of recording devices without his knowledge and authorization.

The Commission recognizes the defects pointed to by the Bell System in the directory listing plan and concludes that such plan would not be effective in providing adequate notice of a recording device.

With respect to the operator-announcement plan proposed by the Bell System, the Commission is of the opinion that this plan is much too cumbersome, involving too much expense and service inconvenience in relation to what can be achieved thereby. Insistence on such a plan might well defeat the objective of regularizing the use of recording devices.

The above conclusions regarding the use of telephone recording devices, and particularly their connection with the telephone line and the form of automatic warning signal, present specific engineering questions. These questions include such matters as how the physically connected type of recorder should be connected to the telephone line, how the automatic warning device should be connected, and the development of an adequate tone warning signal which will be of sufficient audibility to be heard by parties to a recorded telephone conversation, but will not impair the clarity or coherence of the telephone conversation or the recording thereof. The matter of obtaining uniformity of the signal produced by the automatic tone warning devices associated with different types of recording devices and the proper interval of time between signals also require further investigation and study. Since these questions are principally of a technical or engineering character, it is the opinion of the Commission that they can be most readily resolved by an engineering conference of representatives of the telephone companies, the manufacturers of recording devices, the State Commissions and this Commission. On the basis of such findings and recommendations as result from this conference, the Commission will give consideration to the adoption of engineering standards to govern the installation, use, and operation of telephone recorders and automatic tone warning devices. The Commission will postpone issuance of its final order in this proceeding until such consideration has been had.

LAWFULNESS OF PRESENT TARIFF REGULATIONS APPLICABLE TO TELEPHONE RECORDING DEVICES

In view of our conclusion that under certain conditions, the use of recording devices should be permitted in connection with interstate and foreign message toll telephone service, it is our further conclusion that

insofar as any tariff regulations on file with us have the effect of barring such use of recording devices, such tariff regulations are unjust and unreasonable, and therefore unlawful under the provisions of section 201 of Communications Act.¹⁶

APPARENT VIOLATIONS OF APPLICABLE TARIFFS

The record herein indicates that recording devices have been used in connection with interstate and foreign message toll telephone service despite effective tariffs on file with this Commission apparently prohibiting such use. The Commission is of the opinion, however, that no action is called for with respect to these apparent tariff violations in view of the above conclusion as to unlawfulness of the pertinent tariff regulations as applied to telephone recording devices. Of course, once just and reasonable tariff regulations concerning this matter are on file with this Commission, and are in effect, strict adherence thereto, in accordance with the provisions of section 203 of the Communications Act, will be expected.

TARIFF REGULATIONS TO BE ESTABLISHED

The Commission is of the opinion that tariff regulations should be filed with it in accordance with section 203 of the Communications Act, by all telephone companies required to file tariffs thereunder, which state, in conformity with the above conclusions, that recording devices may be installed and used in connection with interstate and foreign message toll telephone service, but only under certain specified conditions. These conditions should include the requirements that recording devices be used only when such device, at the will of the user, can be physically disconnected from the telephone line or switched off; that recording devices, whether they be physically, or inductively connected, be used only when such use is accompanied by the operation of an automatic tone warning device; and that the telephone companies will provide, install and maintain any equipment which is necessary physically to connect a recording device to the telephone line. Specific provision concerning the furnishing, installation, and maintenance of an automatic tone warning device may also become necessary, depending upon the outcome of the engineering conference to be held as indicated above. Provision should also be made for reasonable arrangements which would

¹⁶ Another aspect of this matter is found in the fact that the application of the pertinent tariff regulation of the four Chesapeake and Potomac Telephone companies and of the Bluefield Telephone Co., is dependent upon the "consent" or "approval" of the telephone company. This would also render the tariff regulation unjust and unreasonable, and thus unlawful under the Communications Act. Published tariffs should be definite and certain so that a user can ascertain therefrom that to which he is entitled, without regard to the whim of the telephone company. See our rules and regulations, section 61.55 (f).

permit sales demonstrations by recorder organizations of their equipment. Tariff provisions so filed should afford a definite basis for the regulation under the Communications Act of the use of recording devices, enabling the regularization of such use and the elimination of unauthorized use.

CONCLUSIONS

1. A real need and demand exist, for legitimate governmental and commercial purposes, for the use of recording devices in connection with interstate and foreign message toll telephone service.
2. The use of recording devices does not impair the quality of telephone service. In the case of a recorder physically connected to the telephone line, proper safeguards should be employed in the connecting equipment.
3. The use of recording devices in connection with interstate and foreign message toll telephone service should be authorized, provided such use is accompanied by adequate notice to all parties to the telephone conversation that the conversation is being recorded. Adequate notice will be given by the use of the automatic tone-warning device, which would automatically produce a distinct signal that is repeated at regular intervals during the course of the telephone conversation when the recording device is in use. Both the telephone companies and the recorder manufacturers should also undertake a publicity program designed to inform telephone users generally of the use of telephone recording devices and of the import of the warning signal. Any publicity program should provide for the insertion of full page statements in telephone directories, informing the telephone using public of the nature and use of recording devices and describing in detail the operation and significance of the tone warning signal. In addition, the telephone companies should make available a special telephone number which when dialed or called, would reproduce the tone warning sound.
4. No recording device should be used in connection with interstate and foreign message toll telephone service unless, at the will of the user, it can be physically connected to and disconnected from the telephone line or switched on and off.
5. In the case of a telephone recorder physically attached to the telephone line, the equipment necessary to make such physical connection should be provided, installed, and maintained by the telephone companies.
6. Insofar as any tariff regulations now on file with this Commission have the effect of barring the use of recording devices in connection with interstate and foreign telephone service, under the conditions of such use concluded above to be proper, such tariff regulations are unjust

and unreasonable; and therefore unlawful under the provisions of section 201 of the Communications Act.

7. Telephone carriers subject to the Communications Act should, in accordance with the provision of section 203 of the act, file tariff regulations with the Commission in which the use of recording devices in connection with interstate and foreign message toll telephone service is authorized, so long as the recording device can, at the will of the user, be physically connected to or disconnected from the telephone line or switched on and off. Such tariff regulations should provide that recording devices be used only when such use is accompanied by the operation of an automatic tone warning device; and that the telephone carriers will furnish, install, and maintain any equipment which is necessary physically to connect a recording device to the telephone line. Provision should also be made for reasonable arrangements which would permit sales demonstrations by recorder organizations of their equipment.

8. An engineering conference of representatives of the telephone companies, the recorder manufacturers, the State commissions and this Commission, will be held to consider the technical questions presented by the use of telephone recorders, and the installation and operation of proper automatic tone warning devices. On the basis of such findings and recommendations as result from this conference, the Commission will give consideration to the adoption of engineering standards to govern the installation, use, and operation of telephone recorders and automatic tone warning devices in connection with interstate and foreign message toll telephone service.

9. The Commission will postpone the issuance of a final order in this proceeding until it has considered these engineering matters.

11 F. C. C.

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON 25, D. C.

In the Matter of
USE OF RECORDING DEVICES IN CONNECTION WITH TELEPHONE SERVICE. } DOCKET No. 6787

ORDER

At a session of the Federal Communications Commission held at its offices in Washington, D. C. on the 26th day of November 1947:

The Commission, having under consideration the record herein, including its report made and filed herein on March 24, 1947;¹ and

It appearing that in said report it was concluded, among other things, that an engineering conference of representatives of the telephone companies, the recorder manufacturers, the State commissions, and this Commission, be held to consider the technical questions presented by the use of telephone recorders, and the installation and operation of proper automatic tone warning devices; that on the basis of such findings and recommendations as resulted from this conference, the Commission would give consideration to the adoption of engineering standards to govern the installation, use and operation of telephone recorders and automatic tone warning devices in connection with interstate and foreign message toll telephone service; and that the Commission would postpone the issuance of a final order herein until it had considered these engineering matters.

It further appearing that a public engineering conference was duly held on April 29, 1947, pursuant to the terms of the above report of the Commission, at which conference representatives of the telephone companies, the recorder manufacturers, the State commissions, and this Commission were present and participated; and that subsequent to said conference various engineering work and tests have been conducted pursuant to the conclusions formulated at said engineering conference.

It further appearing that upon consideration of the recommendations formulated at the above engineering conference, the automatic tone-warning devices contemplated by the Commission's report of March 24, 1947, should produce a signal having the following characteristics:

Number of tones.....	1
Length of each tone.....	20/100 of a second with a tolerance of plus or minus 20 percent.
Pitch of tone.....	1400 cycles per second with a tolerance of plus or minus 10 percent.
Frequency of recurrence of each signal.....	Not less than 12 seconds and not more than 15 seconds.
Level of tone.....	Equal to the average telephone talking signal strength.

It further appearing that a tone-warning signal having the above-described characteristics will provide adequate notice to all parties to a recorded telephone conversation that the conversation is being recorded; and that such signal will not unduly interrupt the telegraph conversation

¹ This report appears in 11 F. C. C.

with the recording thereof, having regard to the desirability of the notification of the use of a telephone recorder; and further appearing that in the Commission's above report of March 24, 1947, it was also concluded, among other things, that the telephone companies should undertake a publicity program designed to inform telephone users generally of the use of telephone recording devices and of the import of the warning signal; that any publicity program should provide for the insertion of full page statements in telephone directories informing the telephone using public of the nature and use of recording devices and describing in detail the operation and significance of the tone warning signal; and that, in addition, the telephone companies should make available a special telephone number which, when dialed or called, would reproduce the tone warning sound;

It further appearing that objections have been filed by the American Telephone & Telegraph Co. and the United States Independent Telephone Association with respect to the above conclusions insofar as they would require telephone companies to insert full-page statements in telephone directories and to make available a special telephone number which would reproduce the tone warning sound, for the reasons that such measures would involve considerable expense and burdensome operating arrangements, particularly in the case of small telephone companies; and that therefore the kinds of publicity measures to be carried out by the telephone companies should not, at least at this time, be prescribed;

It further appearing that on August 27, 1947, the Soundsciber Corp., and on October 9, 1947, Thomas A. Edison, Inc., filed petitions with the Commission requesting the issuance of an order authorizing the use of recording devices in connection with telephone service, with or without tone-warning devices, pending the issuance of a final order herein, and also pending the actual availability of the tone-warning devices contemplated by said report of March 24, 1947, and that on September 29, 1947, Dictaphone Corp. filed a petition requesting reconsideration by the Commission of the requirement of a warning device, and, upon such reconsideration the elimination of this requirement;

It further appearing that the American Telephone & Telegraph Co. and the United States Independent Telephone Association have filed statements in opposition to the above petition of the Soundsciber Corp.;

It further appearing that a grant of the above petitions of the Soundsciber Corp., Thomas A. Edison, Inc., and Dictaphone Corp. would mean the authorization of the use of recording devices in connection with interstate and foreign message toll-telephone service without any form of notification to parties using such telephone service that telephone recording devices were being used, which would be contrary to the findings and conclusions of the Commission, as set forth in its report of March 24, 1947, herein, with respect to the need for such notification in connection with the use of telephone recording devices;

It is ordered that the Commission's report of March 24, 1947, herein, as modified by this order, is made a part hereof by reference;

It is further ordered that the use of recording devices in connection with interstate and foreign message toll telephone service is authorized, subject to the following conditions:

(1) That such use is accompanied by adequate notice to all parties to the telephone conversation that the conversation is being recorded;

(2) That such notice will be given by the use of an automatic tone-warning device, which will automatically produce a distinct signal that is repeated at regular intervals during the course of the telephone conversation when the recording device is in use; such signal to have the characteristics specified above;

(3) That such automatic tone-warning device may be furnished or maintained by anyone, whether or not a telephone company, subject to the requirement that such device have the characteristics specified above;

(4) That no recording device shall be used in connection with interstate or foreign message toll telephone service unless, at the will of the user, it can be physically connected to and disconnected from the telephone line or switched on and off;

(5) That in the case of a telephone recorder physically attached to the telephone line, the equipment necessary to make such physical connection as distinguished from the automatic tone-warning device, shall be provided, installed, and maintained by a company or other organization responsible for the furnishing of the telephone service;

It is further ordered that respondent carriers shall rescind and cancel any tariff regulations which any of them now have on file with this Commission which have the effect of barring the use of recording devices in connection with interstate and foreign telephone service under the conditions of such use specified in this order;

It is further ordered that telephone carriers subject to the Communications Act of 1934, as amended, shall, in accordance with the provisions of section 203 of the act, file tariff regulations with the Commission which provide for the use of recording devices in connection with interstate and foreign message toll-telephone service under the conditions specified in this order; and which, in addition, provide for reasonable arrangements for sales demonstrations of telephone recorders by recorder organizations;

It is further ordered that telephone carriers subject to the Communications Act of 1934, as amended, shall undertake an appropriate publicity program designed to inform telephone users generally of the use of telephone recording devices and of the import of the warning signal;

It is further ordered that the above petitions of the Soundsciber Corp., Thomas A. Edison, Inc., and Dictaphone Corp., are denied;

It is further ordered that this order shall take effect on the 15th day of January 1948.

Commissioners Webster and Jones not participating.

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION**

WASHINGTON 25, D. C.

In the Matter of
USE OF RECORDING DEVICES IN CONNECTION } DOCKET No. 6787
WITH TELEPHONE SERVICE.

ORDER

At a session of the Federal Communications Commission held at its offices in Washington, D. C., on the 20th day of May 1948:

The Commission, having under consideration its order of November 26, 1947, herein, and its order of March 25, 1948, postponing the effective date of the order of November 26, 1947, to a date to be subsequently fixed by order of the Commission; and also having under consideration the petition filed on December 19, 1947, by the Bell System Co. requesting the Commission to modify said order of November 26, 1947, so as to (1) provide that the furnishing, installation, and maintenance of the automatic tone-warning device contemplated thereby shall be the sole responsibility of the company or other organization responsible for the furnishing of the telephone service; (2) specify a greater variance in the recurrence of the signal produced by such tone warning device; and (3) extend the effective date of the order 45 days from the date of the Commission's action on said petition; the various other petitions, replies, and statements filed by the parties herein since the issuance of the above order of November 26, 1947; the public informal conference held on April 6, 1948, pursuant to the Commission's public notice of March 17, 1948, at which certain questions presented by the above petitions, replies, and statements were considered; and the statements filed on May 10, 1948, by certain of the participants in said conference;

It appearing that a requirement that the furnishing, installation, and maintenance of the above-mentioned tone-warning device shall be the responsibility of the company or other organization responsible for the furnishing of the telephone service is desirable and in the public interest, in that such requirement will insure the use and proper maintenance of the tone-warning device which will produce the signal having the characteristics described in the order of November 26, 1947, as hereinafter modified; will insure maximum uniformity in the warning signal produced by tone-warning devices throughout the country as contemplated in the final report adopted herein on March 24, 1947; will serve better to effectuate the basic purpose of the order of November 26, 1947, to offer adequate notification to the telephone-using public that their telephone conversations are being recorded; and will provide a guard against impairment of telephone service which may result from inferior tone-warning devices and improper maintenance thereof;

It further appearing that an increase in the permissible variance in the frequency of recurrence of the tone-warning signal as specified in the above order of November 26, 1947, is desirable and in the public interest

12 F. C. C.

in that such increase will reduce the cost of manufacture of tone-warning devices without materially affecting the efficacy of the tone signal as an adequate warning:

It is ordered that the order of November 26, 1947, herein, is modified in the following respects:

In the third recital paragraph of said order, the fourth characteristic specified therein shall read:

Frequency of recurrence of each signal * * * not less than 12 seconds and not more than 18 seconds.

In the second decretal paragraph of said order, subparagraphs (3) and (4) thereof are revised to read as follows:

(3) That such automatic tone warning device shall be furnished, installed, and maintained by the company or other organization responsible for the furnishing of the telephone service, subject to the requirements that such device have the characteristics specified above;

(5) That in the case of a telephone recorder physically attached to the telephone line, the equipment necessary to make such physical connection, including the automatic tone-warning device, shall be provided, installed, and maintained by the company or other organization responsible for the furnishing of the telephone service.

The fourth decretal paragraph of said order is revised to read:

It is further ordered that telephone carriers subject to the Communications Act of 1934, as amended, shall, in accordance with the provisions of section 203 of the act, file tariff regulations with the Commission, to become effective on not less than 30 days' notice, but in no event to become effective later than August 2, 1948, and to provide for the use of recording devices in connection with interstate and foreign message toll-telephone service under the conditions specified in this order; and, in addition, to provide for reasonable arrangements for sales demonstrations of telephone recorders by recorder organizations.

It is further ordered that the order of November 26, 1947, as modified herein, shall take effect on the 30th day of June 1948.

Commissioner Jones dissenting; Commissioners Hyde, Webster, and Sterling not participating.

12 F. C. C.