

Legislative Recording by the Tennessee Archives

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STUDENTS of State history are continually confronted with the paucity of documentary material on State legislation. The acts and journals of most States are woefully inadequate. Certainly the acts will show what was passed by the legislature; and the journals will demonstrate (in as little detail as possible) that bills were disposed of by the requisite number of ayes and noes in the manner required by law. Further digging into the State's archives often will reveal the content of bills that failed of passage. But all of this information comprises a skeleton without flesh and blood.

The scholar is not content merely to know *what* happened. He wants to know *why*. And his sources for this information are extremely meager. He wishes in vain for a State publication similar to the *Congressional Record* in which he could study the debates on bills proposed for passage. In the absence of such a publication, he must fall back on newspaper articles, which usually cover only those bills of great contemporary public interest. Or he may glean some information from correspondence, memoirs, and interviews with participants in the debate. In either case, he must continually be on his guard against accounts that are slanted by political and personal bias or by the wisdom of hindsight. The net result of the lack of complete documentation has been that many State histories, despite the arduous labors of their authors, have been written in a partial vacuum. The whys and wherefores of legislation too often have had to be educated guesses.

No sound student of political processes would maintain that the true motivation of legislators is always reflected in the debates on the floor of the chamber. The importance of cloakrooms and lobbies is well recognized. Nevertheless, few will deny the inestimable value of having available in some form a complete record

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of the legislative proceedings. Unfortunately, only two States have reached a degree of affluence sufficient to finance publication of legislative debates, and only a few have undertaken to preserve any sort of complete account of legislative proceedings.²

One of the major deterrents to keeping *complete* records of legislative proceedings has been the cost of employing a staff of stenographers and typists to do the work. Recent developments in the field of electronic recording equipment, however, would seem to provide the means for keeping a verbatim account at relatively low cost. Tennessee, along with several other States, has used this method with considerable success.

In 1951 and again in 1953 proceedings of one or both houses of the Tennessee Legislature were recorded by a private firm under direct supervision of the State Archives. The recordings were of uneven quality because of the poor acoustics of the legislative chambers and because it was necessary to pick up the proceedings through microphones which, though strategically placed, were as adept at picking up crowd noises as legislators' speeches. But despite this uneven quality, much valuable source material on the passage of legislation was preserved.

These poor recording conditions were virtually eliminated during 1954 when, under the direction of the Tennessee Legislative Council, a new public address system was installed in both houses. This system included individual microphones on all members' desks, which through a specially designed control panel could be cut on or off as the members were recognized to speak from the floor. The legislative council also provided special outlets from the public address system into which recording apparatus could be plugged.

² In 1952 the Illinois Legislative Council reported in its Publication No. 106, *Legislative Broadcasting and Recording* (Springfield, 1952), that "seven states — Connecticut, Maine, New York, North Dakota, Pennsylvania, Tennessee, and West Virginia — have been keeping a stenographic or sound-recorded report of debates or have used recording to supplement or substitute for shorthand reporting" (p. ii). Of these, Maine and Pennsylvania used tape recordings to supplement shorthand notes, and published the proceedings in full. In New York and North Dakota stenographic notes were taken and apparently were used only in preparation of the legislative journals. Connecticut and West Virginia made typed copies of stenographic notes (supplemented by tape recordings in the West Virginia House of Representatives), which were preserved for the use of researchers. Apparently only Tennessee at that time made complete sound recordings of the proceedings in both houses for permanent preservation. *Ibid.*, p. 21. A 1953 survey by the Council of State Governments, *American Legislatures; Structure and Procedures* (Publication BX-291, Chicago, 1954), reported that 14 State legislatures used one or more kinds of recording equipment, adding that "for the most part recordings have been made of committee sessions, although in some cases legislative sessions are recorded." No specific details were given on which States recorded the sessions, except that mention was made of the Tennessee project.

Late in 1954 the council, feeling that the recording of legislative proceedings was properly a function of State government rather than of a private firm, called on the State Librarian and Archivist to investigate various methods of recording and to make recommendations on types of equipment and procedures which could be used to record the legislative proceedings. If this recording was to be done by the State, it was felt that it would properly be a regular function of the State Archives.

In response to the legislative council's request the State Librarian and Archivist appointed a committee to investigate methods of recording and to test various types of equipment that might prove suitable. The committee, of which this writer was a member, drew up a list of requirements that were felt to be essential for the recording machine and the recording media used in the project.

As for the machine, it was essential that it be of high enough quality to produce a clear and understandable continuous recording of the proceedings. Absolute fidelity was not considered essential, since it was not planned to use the records for radio broadcast. The ability to reproduce content rather than voice quality was the major requirement. The machine chosen would have to be capable of operating over a long period of recording time with a negligible amount of "down time" due to electronic or mechanical failure. As a corollary to this, it was essential that the machine be rugged enough to withstand accidental jars or knocks without impairing the quality of recording, since no booth would be provided for the recording and members or employees of the legislature would frequently pass the recording desk. Additional requirements were that it be possible to monitor the recording as it was taking place and that the machine be simple enough in operation so that our own personnel, without extensive training, would be able not only to operate the equipment but also to have sufficient time to make a running index of the proceedings.

Requirements also were established for the recording medium. In the last analysis, the best recording machine and best operating techniques would be valueless unless the quality of the finished recording was sufficiently high to satisfy the needs of the researcher. Obviously, the life of the recording was of primary importance. Whatever medium was chosen, it would first and foremost have to be capable of producing a clear, transcribable record of the proceedings even after an indeterminate number of years of storage. Furthermore, the recordings would have to lend themselves to easy filing in the Archives, occupying as little space as possible. Finally,

the finished recordings should be easily indexed for content, so that specific parts of the recording could easily be located on request.

With these requirements in mind, the committee invited local distributors of recording equipment to submit recommendations on models of their equipment that would meet our requirements and would, in the distributor's opinion, be best for the job. These recommendations were carefully studied by members of the committee, aided by several experts in the field of electronics. Several types of equipment were dropped from consideration because they failed in one way or another to meet the specifications. Magnetic tape, which was head and shoulders above all other equipment from the standpoint of fidelity, was considered not to have the lasting qualities needed for long-term storage. A tendency for magnetic impulses on the tape to "bleed through" to immediately adjoining portions on the reel presented the possibility of loss or garbling of the recordings over a long period of years. Moreover, tape did not lend itself to easy indexing or to quick location of specific portions of the proceedings. Phonograph-type recording was prohibitively expensive, and wire recording appeared to be approaching obsolescence because of the rapid developments in the field of tape recording.

The choice of equipment for the project thus was narrowed down to dictating machines. These use a narrower frequency range with consequent lower fidelity; but they are specifically designed to record and reproduce the human voice in a clear, transcribable form. All the machines tested used a vinyl plastic recording medium, which is tough, durable, relatively inexpensive, and seemingly capable of reproducing sound without any diminution of quality after long periods of storage. Designed as they were for office dictation, the machines were well adapted for easy indexing and for quick location of specific parts of the recording. Of the four models tested all but one (and it was eliminated on this score) used a flat disk which could be filed in a minimum of storage space.

After testing several of these machines under conditions which simulated those to be encountered in the legislative chambers, the committee chose a unit manufactured by the Gray Audograph Co. that seemed to meet all our requirements. This unit consists of two combination dictation-transcriber machines coupled together by an automatic switchover device that turns off one machine at the end of its record and simultaneously turns on the other machine. These machines record at a constant linear groove speed³ on disks

³ Constant linear groove speed differs from the familiar constant disk speed of

capable of recording 30 minutes per side (twice as much as any other machine tested). This means that the operators of the machine have to change disks only half as often, and therefore can devote more of their time to the important task of indexing. From the standpoint of ruggedness, this machine proved unequalled. Not only did it withstand normal jarring, but in tests while recording was in progress the machine was actually dropped a distance of 6 inches onto a table with no resulting evidence that recording had been done under other than normal conditions. The machine was also more powerful than others tested, and therefore better adapted to conference-type recording of committee hearings. Finally, the dual units could be disassembled and the individual machines used for dictation purposes when the legislature was not in session.

For the actual recording of the legislative proceedings, one dual unit was purchased for each house, equipped with a custom-built control panel to permit monitoring of the recording, dubbing-in of material dictated by the operator, and separate control of recording on each machine in the event the automatic switchover device failed to operate. Each unit, in addition, had as accessories one hand microphone, a set of earphones, conference microphones for committee hearings, and pedal controls for transcribing. One additional dictation-transcriber machine was purchased as a substitute for either unit in the event a machine had to be removed for repairs. This additional machine also was used to play back portions of the recordings to members of the legislature who requested it.

The dual unit in each house was tied directly to the amplifier for the public address system. This amplifier, in turn, picked up signals from microphones on the speaker's, clerk's, and individual members' desks. Thus, the recording machine picked up all portions of the proceedings that were "in order"; and we found, through experience, that we were also able to record most debate by members not officially recognized by the speaker. In the event of failure of the public address system, it would have been possible for the operator either to pick up the proceedings through his hand microphone or to break into the recording and describe the proceedings through the hand microphone until service was restored. Fortunately it was not necessary to resort to these expedients.

standard recording machines and of home phonographs in that a given interval of sound always occupies the same number of inches of groove on the disk. At constant disk speed the interval of sound occupies far fewer inches of groove near the center of the disk than at the outer edge. According to some authorities constant linear groove speed results in more uniform quality of recording.

Operators of the recording units were regular members of the Archives staff who received operational instructions from the manufacturer's sales and service representatives. Two other employees also were trained so that they could handle the recording in case of emergency. Lack of previous experience did not prove a handicap in operating the machines, although some previous experience in indexing recordings would have proved helpful, particularly at the beginning of the session.

The Archives established a simple system for filing the disks. Records for each house were numbered consecutively throughout the 75-day session. Numbers were affixed to each disk with plastic tape, with the same number appearing on the filing envelope and on the index sheet. As a double precaution to insure permanent identification of the disk and to minimize the loss in case of its destruction, recording was done on one side only. Onto the other side the operator dictated a statement identifying the house, the number of the General Assembly, the disk number, and the date on which the recording was made. In this way loss of the filing envelope, index sheet, and even the plastic-taped number would not prevent accurate identification and the refiling of the disk in its proper place in the series.

In order to permit quick location of specific portions of the proceedings, index forms were printed for the operators' use. These forms were on lined paper with each line numbered to indicate the number of minutes of elapsed recording time, a figure which could be obtained by referring to the manufacturer's index strip used in the machine. Indexing was done while the recording was in progress, the operator making an entry for each decision of the body as well as for each member who participated in debate. Ultimately a master index of names and bills will be available to make the research scholar's work still easier.

Every project has its problems, and Tennessee's legislative recording was no exception. Fortunately, all but one of the problems were minor; and the one major problem can be solved. The electric wiring in the century-old State Capitol was found to be both inadequate and overloaded, and no positive control over the voltage coming to the recording units was possible without the purchase of expensive voltage regulating equipment. Without this voltage control, there were a number of times when inadequate voltage resulted in the disk's turning at a lower than normal speed. This did not make the recording unintelligible, but did cause a rather humorous change of sonorous bass voices into Donald Duckish

tenors when the disk was played back at normal speed. Provisions already have been made to remedy this defect in 1957, however, with independent wires led direct to each recording unit.

On the whole, the Tennessee Archives' legislative recording project was quite successful. Further refinements will probably be made in future years as experience dictates changes. New electronic advances probably will simplify the recording and improve its quality. Actual use of the records by research scholars will either prove our present indexing system successful or dictate improvements. But regardless of any shortcomings there may be in our present system, we feel that we have provided a new and valuable service to future generations of historians, political scientists, economists, and others who wish to study our legislative proceedings. No longer will these students have to guess what lay behind the bare bones of the legislative journals, nor will they have to search through contemporary newspapers for clues to the debates on the passage or rejection of a bill. In less than one and a half file drawers in the Tennessee Archives they can find the complete record of one session of the legislature, not as interpreted, digested, or reported, but as it actually happened and sounded.