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From a toy to a tool: the emergence and growth of WOI to 1940

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From a toy to a tool:

The emergence and growth of WOI to 1940

by

Kathleen Ann Moran

A Thesis Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE

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Signatures have been redacted for privacy

Iowa State University
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or chapters of my work. Their thoughtful remarks and personal contributions added substantially to the rigorousness of this research.

CHAPTER I. INTRODUCTION

Purpose of Research

In 1937, the National Advisory Council on Radio in Education published a book that for all intents and purposes was a record of repeated failures. Author S. E. Frost's Education's Own Stations is a depressing account of 164 educational¹ stations that failed when they became mired in a "new species of mud."² In an attempt to understand why this regrettable situation existed, Frost gathered the records of these, and 38 successful educational stations that managed to stay on the air after surmounting overwhelming odds. Although statistics and brief histories cannot tell the entire story, the information gathered in Frost's study helped those interested in educational radio to comprehend the dimensions of their problems. It also gave them a basic idea of how the surviving stations faced and solved these problems.

WOI was one of the fortunate minority of educational radio stations that not only escaped from the mire, but managed to carve out an important niche in Iowa broadcasting in the years before World War II. Frost profiled WOI as one of his 38 success stories. But his study is limited by both space and time. WOI deserves closer examination because its history shows how one station was affected by the unbridled growth of an industry that was surprised by its own power and popularity.

It is a rare radio station that can successfully blend classical music and farm market reports, but WOI's philosophy and approach to broadcasting fostered this incongruous blend and enabled it to

thrive -- serving a varied audience that depended on and appreciated its efforts.

Few histories of the early development of educational radio stations have been written. While WOI was unique in some ways, it also can be considered a microcosm of land grant college stations that began broadcasting very early and fulfilled their mandate to broadcast "in the public interest." Thus, it is felt this history can contribute to the understanding of how educational stations were affected by and developed within the radio industry.

Limits of this Research

This paper concentrates primarily on the development of WOI through approximately 1940 for several reasons. First, radio developed with incredible speed in the 1920s and 1930s. The myriad of factors simultaneously influencing radio's development necessitate considerable "back tracking" to accurately describe the interaction among these factors, limiting the time period that could be covered. Furthermore, what occurred during this time set the scene for decades to follow. By 1940, federal regulations, programming format and the role radio was to play as a cultural influence in this society were all established. After 1941, WOI's annual reports reflect this situation. Record keeping thereafter consists of budget figures and cursory remarks about administrative changes. Therefore, primary source material on WOI's operation after this date is very limited until the recent resurgence of public radio activity.

Footnotes

¹Educational radio is now called "public radio," which is a more inclusive term. I chose to use the earlier term because it more clearly exemplifies WOI's initial role in radio and education.

²S. E. Frost, Jr., Education's Own Stations (Chicago: University of Chicago Press, 1937), p. ix.

CHAPTER II. FROM 9YI TO WOI -- GETTING ON THE AIR

Many of today's educational radio stations began as experiments in electrical engineering laboratories of U.S. colleges and universities. For those involved in this early experimentation, radio was a toy long before its true value was recognized. Getting radio out of the laboratory and into the hands of those who saw the educational and entertainment potential of this medium was a gradual process. Some educators predicted radio would be the panacea for world problems, while others withheld judgments and support until its popularity and usefulness could not be denied.

A brief summary of the evolution of radio in the United States is necessary, not only to capture the excitement of the era, but also to describe the unknowns faced by the earliest broadcast stations when they decided to experiment with the "wireless." This discussion will give the context in which the Electrical Engineering Department at Iowa State College¹ and the school's administration dealt with these problems when it decided to venture into radio broadcasting.

* * * *

Radio was not truly a "new" medium when its popularity swept the nation in the early 1920s. "Wireless" communication had been used regularly and successfully for ship-to-shore communication nearly 20 years before voice communication was perfected. Shipping firms used the wireless to send Morse code messages to make last-minute changes in cargo schedules and alert their ships to inclement weather conditions.

As early as 1899, radio distress calls saved lives at sea. At the same time, amateur radio operators (called "hams") started casual communications by code with operators on cargo ships, and before long, messages between ship radio operators and hams were more frequent than official messages. This created such an "amateur clamor, that naval officials became concerned about the level of interference."²

Another event, the great Titanic disaster in April, 1912, added impetus for national and international regulations, including the requirement that radios be installed on ships and staffed by qualified operators. In the United States, the first radio regulation act was passed only months after the sinking of the Titanic. The 1912 Radio Act was a boon to the fledgling radio equipment companies that had sprung up in the United States to supply ships with radio equipment. Between 1912 and 1920 the United States Navy was, by far, the largest customer of private electrical manufacturers and inventors. "Whenever a new device could be demonstrated to be of practical value, the Navy became a generous purchaser of equipment."³

During the First World War, most private uses of radio were banned. The federal government required all radio equipment be turned over to the United States Navy for use in the war effort. It was during the war that the scientific resources of electrical manufacturers were pooled, resulting in numerous electronic breakthroughs. Thus, by the winter of 1918 the U.S. naval installations along the East Coast were able to communicate by wireless telegraphy to the Expeditionary Forces in France.

In order to supply the demand for radio operators in the war effort, a great number of hams of the 1920s were trained at district radio schools.⁴ After the war, these operators returned home and, as soon as radio equipment was released by the federal government, went back to building, experimenting and communicating with their "wireless telegraphs." While dialing across the band, to their surprise and pleasure, they occasionally heard voice transmissions. For example, Charles D. Herrold, operator of a college of engineering and wireless in San Jose, California, had broadcast news and musical programs since 1909, except during the war. Farm news, too, was being relayed, first in Morse code as early as 1916 and in 1920, by voice transmission from the University of Wisconsin's radio station 9XM (now WHA).⁵

The major breakthrough occurred in 1920. On November 2, radio station KDKA in Pittsburgh used voice transmission to report the results of the Harding-Cox presidential election, showing the nation there was something significant to this "plaything" of hams and electronic engineers. This first "voice media event" was widely reported by the press and excited radio enthusiasts throughout the United States. Educators, too, began to look upon the phenomenon of radio as something they could use to benefit the entire community.⁶

Iowa State Experiments with Broadcasting

Iowa State's Electrical Engineering Department already had an active "wireless" telegraph station for sending Morse code messages. In 1913, the student newspaper reported that, "...the new wireless

receiving antenna is being installed on the Steam and Gas Laboratory chimney and will continue to be used to regularly send and receive weather reports using the call letters 9YI."⁷

This first station was located on the second floor of what is now called the Mechanics Laboratory. In 1921, it was moved to the Engineering Annex building directly south of the water tower. Until 1921, coded messages were sent with a second-hand ship's transmitter on 833.3 kilohertz (kHz).⁸ Depending on the time of day and the weather conditions, messages in Morse code were received from around the United States and beyond.

Professor F. A. Fish, head of Electrical Engineering, had heard some voice transmissions and wanted to experiment with it in his laboratory. He was aware from the start that radio would soon be more than just the "toy" most people took it to be. Radio broadcasting was "destined to play a very important part in the dissemination of information and education," he wrote, "as well as [provide] music and entertainment."⁹ In 1921, Fish received permission from the administration to hire Harmon B. Deal, a Massachusetts Institute of Technology graduate, to supervise the building of the college's first broadcasting station. He was assisted in assembling the circuitry by two electrical engineering students, Andrew Woolfries and Eugene Fritschel.

The project proceeded slowly because manufacturers were concentrating their efforts on receivers intended for public sale instead of on transmitting equipment and parts. And worse, some parts were

not yet being manufactured. Coming to the rescue with substitutions and improvisations, Deal and his assistants pursued their goal. Finally, on the evening of November 21, 1921, Woolfries put the finishing touches on the equipment, "warmed up" the 100-watt transmitter on 800 kHz., and spoke his first words over the air. The first voice contacts from 9YI in Ames were with two college stations, one in Pennsylvania, the other in Fort Worth, Texas, and with Fitzsimmons General Hospital in Denver, Colorado.¹⁰

The transmitter used a constant current system of modulation-alternating current filament lighting and 1500 volt plate potential. The motor generator was operated from college power lines. The total cost of this project was \$1,396.¹¹

Although the station was on the air only a few hours a week during the first months, people with receivers listened for the signal from the Ames campus. Chauncey Hoover, then an Iowa State engineering student, recalls hearing those evening test broadcasts in 1921 and 1922. "You had to search around for 9YI because of interference from other stations (mostly private hams), but Ames would always play the same "tune-in" music -- the Bacchanale from the Tales of Hoffmann. This gave listeners time to adjust their equipment. Then Andy (Woolfries) or Gene (Eugene Fritschel) would read the weather and a few market figures, and sign off."¹²

On April 28, 1922, the Radio Division of the Department of Commerce and Labor granted Iowa State a federal broadcast license and assign it the "call letters" WOI.

The call letters WOI do not identify location or ownership except that W (at that time) meant the station was licensed in the United States. The O and I were random, alphabetical selections.¹³ Some stations requested special letters ... and received them. The State University of Iowa, for instance, received on request the call letters WSUI for its radio station. Iowa State students held a contest in the 1940s in an attempt to associate WOI's call letters with the College. Apparently the contest attracted only campus clowns since the "winning entry" proclaimed WOI stood for Weak, Outrageous and Inaudible.¹⁴ Some people wanted a call that clearly identified the station with Iowa State, KISC for Iowa State College, for instance. The College administration and the station believed a short three-letter call was better than a "catchy" four-letter call and retained WOI.

Neither catchy nor short call letters solved the problems most stations had in reaching their audiences during the early 1920s. Poor signal reception was partly due to the low-power transmitters most stations used. But a more important problem was created by a 1921 government decision that all news and entertainment stations must broadcast on the same wave length -- 833.3 kHz. The only other designated broadcast channel -- 618 kHz., was reserved solely for federal broadcasts such as U.S. Weather Bureau forecasts. This federal regulation was made when only 30 stations existed in the country. Then, in less than a year, the number of stations broadcasting on

833.3 kHz. jumped to 556, creating incredible interference and jamming problems.¹⁵ When tuning for a station, listeners sometimes heard not one, but two or more broadcasts simultaneously. Some stations sought to remedy the chaos by making cooperative arrangements with other stations in their area. But they seldom lasted and the federal government lacked the power to control the deteriorating situation.

Despite the drawbacks, the radio craze continued to sweep the country, and did so for the rest of the decade. The number of receivers sold went from 60,000 in 1922 to 13,750,000 in 1930, an enormous increase of 22,900 percent. One reason for this fantastic growth rate doubtless lay in the climate of the times. Radio's appearance coincided with great changes brought about by such astonishing inventions as the automobile, which broke the distance barrier, and the motion picture, which brought the world to every neighborhood, pulling people out of their immediate environment. It was in this post-war period of rapid change that radio was introduced, contributing to the collapse of the distance barrier and playing with people's conception of time.¹⁶

With the barriers broken, the flood ensued, creating a demand for radio sets that manufacturers could not match. For example, in Iowa in the spring of 1922:

...radio supply stores sprang up everywhere, literally overnight. The market for every kind of radio supplies went wild. At least five retail radio equipment stores opened their doors in Des Moines within a month. For awhile that's about

all they did...open their doors and hang out signs. Stocks could not be secured.¹⁷

Just 18 months following KDKA's "media event," six Iowa stations were on the air and regularly broadcasting a growing selection of programs. But only two of these stations, WOI and WOC in Davenport, were powerful enough to be heard in all parts of the state, and then only when transmission conditions were favorable.

To be assured of better transmission capability under these chaotic and unpredictable conditions, in 1923 Harmon Deal increased the station's output to 500 watts by dismantling the old transmitter and using its parts to build a new one. Again in 1924, the 500-watt transmitter was dismantled and another one built to handle 750 watts of power. This allowed WOI to keep up with engineering technology and offset the ever-present interference from other stations.¹⁸

The transmitter typified two major aspects of WOI's operations at this time. It illustrated the growing popularity of the station as it beamed weather, markets and music to Iowans. It also demonstrated the ingenuity needed to overcome budget constraints of early stations. The Western Electric Company had quoted \$18,000 in 1924 as the cost of an uninstalled 750-watt transmitter. That was \$8,000 more than the salary paid to the college's president that year. This led Harmon Deal to organize a team of electrical engineers to tear down the old transmitter and construct a new 750-watt transmitter for only \$3,432.¹⁹

Improvisation was the word on antennae as well. Because WOI could not afford a separate tower, a multiple-wire transmitting

antenna was strung between the brick chimney located behind the old Steam and Gas laboratory and the water tower, which still stands behind the Engineering Annex.²⁰ A drawback to this arrangement was that the water tower was the tallest metal object on campus, making WOI equipment vulnerable to lightning. To minimize the danger, the station went off the air during storms and the antenna was connected to ground through a heavy switch.

By the time the new 750-watt transmitter was in operation, WOI had acquired new quarters -- which it did not have to share with the rest of the engineering department. In 1924, a large laboratory in the Engineering Annex was given to the station. It was partitioned into a suite of rooms and for the first time, announcers were separated from the engineers and their equipment.

* * * *

Throughout this period of experimentation, all radio stations struggled to be heard above the clamor of other stations just as determined to succeed. But determination alone could not solve the problems that plagued this fledgling medium. How was broadcasting to be funded and by whom? How many stations would or could the broadcast band hold? To what extent would the federal government control broadcasting? Should educational stations receive special consideration? These and other questions arose out of the chaos that radio found itself in as a result of the rush to claim a

spot on the single frequency that the federal government had set aside for general broadcasting use.

Footnotes

¹In 1959 Iowa State College became Iowa State University of Science and Technology.

²Erik Barnouw, A Tower of Babel: A History of Broadcasting in The United States, Vol. 1 -- to 1933 (New York: Oxford University Press, 1966), p. 28.

³Gleason L. Archer, History of Radio to 1926 (New York: American Historical Society, Inc., 1938), p. 103.

⁴Archer, History of Radio, pp. 142-3.

⁵Barnouw, A Tower of Babel, p. 61.

⁶Geroge H. Gibson, Public Broadcasting: The Role of the Federal Government, 1912-1976 (New York: Praeger Publ., 1977), p. 1.

⁷Iowa State (Ames) Student, Oct. 4, 1913.

⁸Kilohertz (kHz.) is used today where, in the past, "meters" and "kilocycles" (kc.) were used. For simplicity's sake all broadcast band locations given in this paper will be referred to in kilohertz (kHz.).

⁹Anson Marston, "Iowa State College Broadcasting Station WOI," (Report to President R. Hughes), WOI History Files, Radio Station WOI, Ames, Iowa, Dec. 24, 1927.

¹⁰Andrew Woolfries, Interview, Osage, Iowa, October, 1979.

¹¹Marston, "Broadcasting Station WOI."

¹²Chauncey Hoover, telephone interview, Chandler, Arizona, Dec. 8, 1980.

¹³Woolfries, Interview, Osage, Iowa, October, 1979.

¹⁴Woolfries, Interview, Osage, Iowa, October, 1979.

¹⁵Christopher Sterline and T. Haight, The Mass Media: Aspen Institute Guide to Communication Industry Trends (New York: Praeger Publishers, 1978), p. 43.

¹⁶Christopher Sterling and John Kittross, Stay Tuned: A Concise History of American Broadcasting (Belmont, Calif.: Wadsworth Publ. Co., 1978), p. 51.

¹⁷Carl K. Stuart, "Thousands in Hawkeye Radio Audience," Hardin County Ledger (Eldora, Iowa) Sept. 21, 1922.

¹⁸S. E. Frost, Jr., Education's Own Stations, (Chicago: Univ. of Chicago Press, 1937), pp. 124-125.

¹⁹Marston, "Broadcasting Station WOI," p. 50.

²⁰"A History of WOI," WOI History Files, Radio Station WOI, Ames, Iowa.

CHAPTER III. STRUGGLE FOR A CLEAR VOICE

Radio evolved in a "free-for-all" environment because no precedents or guidelines existed for its development. The federal government was as overwhelmed by radio's rampant growth as were radio manufacturers. The 1912 Radio Act did not address itself to mass broadcasting since it did not then exist. That act gave the federal government the right to issue radio licenses but no enforcement powers to control the actions of individual license holders.

With 566 broadcast stations on the air by late 1922, signal interference was becoming a major problem. Since all general use broadcasting was still restricted to a single frequency -- 833.3 kHz., pandemonium plagued the airwaves. Some stations had gentlemen's agreements with each other to divide hours and avoid mutual interference. But most deliberately ignored nearby stations, trying to drown them out.

Administrators of Midwestern land grant colleges were especially anxious about Washington's lack of concern over their plight. Most commercial stations were beginning to attract audiences with popular entertainment programs. But, land grant colleges had high hopes of using radio as a means of disseminating information to farmers. Over \$100 million was being spent annually on agricultural research and radio promised to be a natural conduit to pass on its benefits. Now, many of these stations were being outmaneuvered and overpowered by an avalanche of commercial interests bent on participating in the newest type of communication.¹

WOI Versus Washington

Following the Second National Radio Conference in 1923, Secretary of Commerce, Herbert Hoover, expanded the broadcast band somewhat and instituted a frequency reallocation which gave the broadcasters with the most power the preferred frequencies (550.5 to 800 kHz. and 869.6 to 1,000 kHz). Smaller stations or those which had less influence in Washington were generally left on the still overcrowded 833.3 kHz. wavelength.

Especially hurt were the educational stations. Many of them lacked adequate financial support because college administrators were not always eager to finance this unproven medium. Therefore, stations with access to financial support (many newspapers and department stores funded the first radio stations) could "lobby" for more favorable frequencies and full-time broadcasting rights. So, for the next few years educational and other small stations were reassigned to higher frequencies which were the poorest locations on the broadcast band. Since the higher the frequency the greater the power needed for equal coverage, these high assignments meant sharply reduced effective area.²

WOI's frequency moved four times between 1922 and 1929. The first move, in 1925, was from 833.3 to 1,110 kHz. Not only did this, in effect, reduce WOI's coverage, it also forced the station to continue to share the frequency with 13 other stations in the nation, including a 1,500-watt Detroit station which caused constant interference during evening broadcasts. D. C. Faber, Director of Engineering

Extension, reported that "daylight hours interference wasn't bad unless one of the stations got off its wavelength. But at night, from the outer part of Iowa, WOI was often received only with great difficulty if at all."³

This long distance problem was a nuisance, but equally disturbing was WOI's loss of listeners due to interference from local stations. A majority of the early receiving sets could not tune out local stations transmitting on adjacent frequencies. There were 34 radio stations in Iowa by 1926 and all were assigned frequencies between 570 and 1,079 kHz., making it difficult for even the best receivers to tune out nearby signals.⁴

WOI, with 750 watts of power, caused its share of interference as well. A woman from Williams, in north central Iowa, wrote to her favorite radio station KFNF in Shenandoah complaining what a "nuisance" WOI was, "We never get you at night and only one-half an hour at noon on account of Ames.... I simply tore my garments when I heard Ames talking about taking more air time."⁵

These frequency problems concerned the administrators of WOI so that in 1925 Faber was sent to the Fourth National Radio Conference in Washington, D.C. to request a "more favorable [lower] wavelength."⁶ Little action was taken at this conference, as had been the case in three preceding radio conferences. The chaos continued until 1926 when, according to broadcast historian Erik Barnouw, "All sorts of tensions finally came to a head -- tensions from small versus powerful stations, copyright owners versus users, educational versus commercial

interests. They all threatened to erupt at the same time."⁷ Congress finally moved to act on federal regulations specifically designed for radio broadcasting. The result was the 1927 Radio Act.

Only months before the Radio Act was passed, WOI was moved again -- this time to an even higher less favorable frequency -- 1130 kHz. In an attempt to offset the reduced coverage, the station built a 5,000-watt transmitter which went into operation in January, 1927, regaining coverage to the entire state.⁸ With a nationwide reassignment in November, 1928, WOI finally received a welcome change. The station was assigned to 560 kHz., and shared the frequency with only one other station, KFEQ of St. Joseph, Missouri. Even though radio law required a reduction in power to 3,500 watts, this frequency afforded vastly superior coverage and WOI operated without much interference for the next two years.⁹

WOI's final move was to 640 kHz. in November, 1929. With this change WOI was again allowed to operate at full power, 5,000 watts, but was limited to daytime operation. Two other stations, KFI of Los Angeles, California, and WHKC of Columbus, Ohio, were located on this frequency and since they already had full-time use of the channel, WOI's nighttime signal would interfere with theirs, so it was forced to take a back seat in this matter.¹⁰

This loss exemplifies the problems educational stations continued to experience despite the Act's promise to grant licenses according to "the public interest, convenience or necessity." Although the 1927 Act allowed for a more orderly growth of broadcasting, some of its

provisions further weakened many educational stations' tenuous claims to space on the broadcast band. Mandated equipment upgrading, the required use of all allotted time and constant battles against encroachment by commercial stations eventually wore down many educational stations.

Some 200 educational institutions were granted licenses through 1936, but the expiration rate tells another story. Although 25 new educational stations went on the air in 1925, 37 others expired in 1928; 23 more stations closed down in 1929.¹¹

However, by the early 1930s things looked more promising for educational broadcasters. With the victory of Franklin D. Roosevelt in 1932, educational stations believed they had a champion for their cause in the White House. The National Committee on Education by Radio, organized in 1930, lobbied for a bill to reserve 15 percent of all channels for educational use only. Later, this was increased to 25 percent. However, neither this nor other proposals in the Wagner-Hatfield bill presented early in 1934 passed. Instead, in a compromise move, Congress proposed the entire matter be "studied," once the Communication Act of 1934 was passed and the newly created Federal Communication Commission was established. (The Act became law in July, 1934.)

Nothing came of these studies and it was not until 1945, when FM (frequency modulation) channels were opened, that the FCC tacitly acknowledged its past neglect and finally reserved channels exclusively for non-commercial, educational broadcasting.¹²

A majority of the non-commercial stations that survived this extended period of neglect were affiliated with tax-supported land grant institutions in the Middle West, such as Iowa State College. WOI had a definite message to convey, a well-defined audience and access to experts in various agricultural fields. It could survive and even compete with commercial stations by appealing to special interest audiences in a way other stations could not afford.

Encroachment Attempts on WOI

WOI's early entrance into farm service broadcasting, combined with other advantages of being affiliated with a land grant college, precluded serious attempts by other stations to encroach into its allotted time and frequency. College and Extension support enabled WOI to update its equipment to satisfy federal guidelines and maintain a full schedule of programming. License renewal time usually found WOI with a strong argument against time or frequency changes. Not until 1934 did the WOI management feel compelled to send someone to Washington, D.C. to defend it against encroachment.

What transpired in 1934 is a classic example of what happened to educational (and other small) stations time and again during the first decade of radio broadcasting. This was a battle of big versus little, commercial versus educational.

In 1934, when WOI applied to renew its license (by law, every three years), it learned that nine commercial interests had applied to broadcast on 640 kHz. Most applicants were located some distance from Iowa -- but one, KFUP in St. Louis, Missouri, was close enough

to cause interference, particularly in southern Iowa. KFUD had also proposed a time-sharing arrangement with WOI. It was a small, religious station which at that time shared 550 kHz. with KSD, operated by the St. Louis Post Dispatch. The 640 kHz. challenge was KSD's idea -- its owners wanted full-time broadcasting rights on its frequency and funded KFUD's time/frequency-sharing application.¹³

This threat to WOI's low-interference status led to a statewide plea for support. Because of its preeminent position in market broadcasting by this time, WOI's Broadcast Director, W. I. Griffith, and R. K. Bliss, Extension Service Director, were able to gather substantial support. A letter to the FCC from Iowa Governor Clyde Herring declared that "uninterrupted service of WOI was essential for the best interest of the state of Iowa."¹⁴

Funds allocated from state, school and Extension sources were used to engage attorney H. L. Lohnes of Washington, D.C. He was assisted by Iowa Attorney General Edward O'Connor and Assistant Attorney General L. T. Ryan, in representing WOI at the FCC hearing in Washington.

WOI alerted its listeners to the impending hearing -- asking for letters of support to use in its defense. Newspapers, grain elevator operators, livestock dealers, Chambers of Commerce and, particularly, Iowa farmers rallied to WOI's support. By the time of the hearing in October, over 21,800 signatures and letters of support arrived at the station. In Washington, J. Clyde Marquis, Director of Economic Information in the Bureau of Agricultural Economics of the USDA, testified to the service rendered by WOI and of the cooperation that

existed between the various branches of the USDA and WOI. He stated that "anything less than full time [broadcasting] would result in a reduced service to the public."¹⁵ WOI fought with facts and figures that helped persuade the Commission to decide in favor of the Ames station.

In addition to helping WOI ward off this attempted encroachment, the letters of support proved a great ego boost to the station's staff. In his 1934 Annual Report, Griffith wrote, "...One fine thing that developed as a result of this [hearing] was the receipt of thousands of the finest kind of letters from listeners...many stating in actual dollars and cents how much they had made as a result of the market reports."¹⁶

Although WOI won this final challenge of its good frequency, it was not as successful in maintaining its listenership in Iowa. Its head start in developing market reports quickly drew Iowa farmers -- and held them -- because of this up-to-minute service. But WOI did not compete as well in other types of programs.

Within four years of WOI's pioneer broadcast in 1921, 34 stations in Iowa were competing for listeners and all but one -- WSUI in Iowa City -- were commercial stations. The introduction of networks in 1927 enabled some of the larger Iowa stations like WHO in Des Moines, WMT in Cedar Rapids and WOW in Omaha to attract listeners with extremely popular entertainment programs. And with the demise of its nighttime broadcasting in 1929, WOI lost even more listeners. Despite these losses, WOI continued to address itself to the specialized

audiences commercial stations could not or did not cater to. The College administration usually supported this approach, but on occasion, economic concerns surfaced and threatened WOI's independent voice.

WOI/WSUI Merger

Although a majority of Iowa State's administration fully supported WOI's independence, some members of the Iowa State Board of Education (composed of representatives from Iowa State, the University of Iowa and the State Teachers College at Cedar Falls) promoted the idea of merging Iowa State's radio station and the University of Iowa's station, WSUI. After some earlier suggestions to do so, an in-depth study of a possible merger was initiated in 1934 when several factors heightened interest in a consolidation.

The constraining effect of the economic depression was one strong argument for merging WOI and WSUI. Operating expenses for the two stations added a burdensome \$23,155 to the state budget in 1933. (Some funds for Extension's contribution were supplied by the federal government.)

A second factor -- a proposal by Des Moines businessman T. I. Stoner -- added fuel to the merger discussion. His plan was to lease the consolidated station for commercial purposes, but to permit the institutions to use the frequency during certain hours of the day.¹⁷ Also to be considered was WOI's impending license renewal challenge by KUFO that might result in a frequency and time-sharing situation with an out-of-state station.

A committee appointed to study the proposal eventually denied the lease request because each station carried its own programming at certain hours of the day. Also, a majority of the Board members believed the educational and non-commercial nature of the stations should be maintained.

The proposed merger of WOI and WSUI was also tabled later that same year. Presidents of both schools rejected the consolidation proposal because they believed the identification of each station would be lost and neither could adequately serve its specialized audiences if the merger occurred. The estimated expense of a merger lent support to their resistance. The cost of linking the two stations by telephone lines was estimated to run as high as \$9,240 per week for continuous service.¹⁸ This figure was enough to convince the Board to permanently set aside the idea of a merger between WOI and WSUI.

* * * *

These external challenges to WOI were only part of the problem facing most educational stations during the formative years of radio. Some stations won their fight for a frequency, but then folded when they failed to gain adequate financial and moral support to sustain their operations. It was a constant struggle, not only to stay alive, but also to cope with the technical, personnel and other identity problems facing any infant industry.

Footnotes

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³D. C. Faber, "Report on Radio Broadcasting Station," WOI History Files, Radio Station WOI, Ames, Iowa, Jan., 1926.

⁴Anson Marston, Memorandum on WOI to Iowa State College President, R. Hughes, WOI History Files, Radio Station WOI, Ames, Iowa, Jan. 8, 1925.

⁵L. W. Ball, Letter to Henry Field, Pres. Henry Field Seed Co., Shenandoah, Iowa, WOI History Files, Radio Station WOI, Ames, Iowa, Jan. 8, 1926.

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⁷Erik Barnouw, A Tower of Babel: A History of Broadcasting in The United States, Vol. I -- to 1933 (New York: Oxford University Press, 1966), p. 172.

⁸"A History of WOI," WOI History Files, Radio Station WOI, Ames, Iowa.

⁹"A History of WOI."

¹⁰"A History of WOI."

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¹³W. I. Griffith, "1934 Annual Report," WOI History Files, Radio Station WOI, Ames, Iowa, pp. 20-25.

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¹⁵"Brief in Support of Application of Station WOI for Renewal of License," Docket No. 2545, submitted to the Federal Communications Commission, 1934. WOI History Files, Radio Station WOI, Ames.

¹⁶Griffith, "1934 Annual Report," p. 25.

¹⁷E. Gilmore, letter to B. Mahan, WSUI Radio File, Box 1, Archives, University of Iowa Library, Iowa City, Iowa, July 11, 1934.

¹⁸R. M. Hughes, letter to Iowa State Board of Education, WSUI Radio File, Box 1, Archives, University of Iowa Library, Iowa City, Iowa, July 10, 1934.

CHAPTER IV. GROWING PAINS

The failure of many educational stations cannot be blamed entirely on lack of support from the federal government. The incidence of failure was aggravated by the fact that at most educational institutions enthusiasm for radio was confined to a few individuals who had to deal with apathetic and usually disinterested administrative officials and staffs. This problem was especially common on campuses where there was not an Extension Service connection. When unrealistic expectations of rapid increased enrollment due to radio publicity did not develop at these schools, many educators and administrators turned their backs on the stations.¹

The Extension Services on many land grant campuses influenced college administrations to champion, or at least support, the cause of educational broadcasting. They not only saw the value of radio in bringing farmers closer to their school -- and providing a powerful "lobby" in states like Iowa -- they also recognized the value of Extension in relaying information about research on their campuses to the men and women on farms.

WOI's early statements of purpose reflected the close working relationship that existed among Iowa's Extension Service and the college's administration.² This purpose -- to serve Iowa farmers and to present programs clearly associated with Iowa State -- facilitated good relations between the college administration, Extension Service and the WOI staff, as a result, the

administration helped defend the station against encroachment, commercialization and its loss of identity.

Early interdepartmental correspondence relating to WOI reflects the College's sense of responsibility toward the station's success.

For instance, the Dean of Engineering, Anson Marston, wrote:

While WOI broadcasting service cost is high,³
I believe that the value of the service is more
than correspondingly great.

The money value to Iowa of the market report
service alone is, I believe, several times the
cost of the entire station.⁴

In 1933, only 24 educational broadcasting stations remained in operation. Of these, 19, or more than three-fourths were owned by land grant colleges. These schools had information for a specific audience -- their state's farmers. This early-defined role and the presence of an already well-organized Extension Service on campus to depend upon, made a crucial difference in the survival of the first educational radio stations. The "Extension connection" was also evident in the administrative organization of WOI almost from the moment of its birth. Professor F. A. Fish, head of the Electrical Engineering Department, was responsible throughout the early period for all radio engineering features of WOI's construction and operation. But, the administrative functions were under the charge of a general college committee with R. K. Bliss, Director of Agriculture Extension, as chairman, and D. C. Faber, Director of Engineering Extension, assisting Bliss. W. I. Griffith was hired as Radio Program Director in 1925.

Within two years broadcasting time had nearly tripled from a yearly total of 425 hours in 1925 to 1,228 hours in 1927. This required a reorganization to better coordinate programming activities and administrative responsibilities. This restructuring put Griffith in complete charge of WOI operations. Thereafter he was responsible to the directors of Agriculture and Engineering Extension and the president of the College. This change gave WOI an identity of its own as an independent division within the College. But it did not solve one of the pressing concerns now facing most educational stations: money.

Funding

That most radio stations would support themselves by "going commercial" was far from predictable in radio's early days. In 1924, Bruce Bliven protested in the Century magazine that the "use of the radio for advertising is wholly undesirable and should be prohibited by legislation if necessary." Meanwhile, Secretary of Commerce Hoover, although against advertising, believed the problem of radio publicity and sponsorship should be settled by private interests and not by government compulsion and legislation.⁵

Nevertheless, by the late 1920s advertising had, to a great extent, become the accepted means of financing most stations. This left educational stations more desperate than ever for a reliable and adequate funding source. Although federal regulations did not prohibit advertisements on educational radio, most institutions owning

radio stations were extremely reluctant to accept it because state taxes indirectly supported the operation of these stations.⁶

Parts replacement and equipment improvement expenses far exceeded what many college administrators were willing to budget for this "toy." Besides the cost of updating equipment, federal regulations by 1928 called for all stations to use every hour allotted to them for broadcasting. This put an added strain on budgets. To be a success, relatively speaking, educational broadcasting demanded large financial resources, specialized and highly trained talent and constant effort and experimentation. It is little wonder that, for a majority of educational institutions, it was not possible to own and operate a station.⁷

Similar financial constraints at Iowa State occasionally fostered the temptation to make WOI self-supporting. Through the State Board of Education, WOI was approached several times in the late 1920s and early 1930s by commercial interests attempting to woo it with lucrative arrangements. In November, 1927, Iowa State President R. M. Hughes advised the Board that a commercial interest would arrange and sponsor a live musical program and pay WOI \$200 an hour if its name were mentioned during the broadcast. Again, in 1931, a suggestion was made to the school that they lease the station for \$50 an hour during the time WOI was not in use. Both times the Buildings and Business Committee of the Board of Education reaffirmed and supported the College's resistance to using advertising on a station

supported by federal funds (Extension Service) and taxes from Iowa residents.⁸

It was primarily with Extension funds that WOI could continue to grow along with the rest of radio. But it was not without some difficulty that this source of funding became established. Within months of WOI's initial broadcast in 1921, R. K. Bliss, the director of Extension Service, was sending Extension specialists to the station to give short agriculture talks. He, like many Extension administrators, saw the tremendous potential in radio -- a potential of which the United States Department of Agriculture apparently had to be convinced. It took Bliss an entire year to persuade the USDA that broadcasting was indeed a "legitimate public expense for Extension education."⁹ Thereafter, Extension provided the lifeline for financial support of the station.

WOI's initial operating budgets were no more rigidly prescribed than its early organizational structure. The earliest available record of operating expenses showed total costs of \$2,627 in 1923. This expense was spread among Electrical Engineering, Agriculture Extension and Engineering Extension.

After an organizational restructuring in 1925, funding came from three sources: general College funds (still allocated to Electrical Engineering but designated specifically for WOI), Agriculture Extension and Engineering Extension funds.

Reflecting the need for constant equipment modernization and other changes, WOI's 1927-1928 estimated budget jumped to \$14,640 --

more than five times the 1923 budget. A breakdown on the 1927 estimated budget is shown in Table 1 below:¹⁰

Table 1. 1927-1928 fiscal year budget (estimated)

	Agriculture Extension	Engineering Extension	College
WOI educational budget ^a			
Director radio programs (2/3 time)	\$1,400	\$1,000	
Stenographer	510	510	
Office expenses	<u>500</u>	<u>1,000</u>	
Total educational	\$2,410	\$2,510	--
WOI plant operation			
Radio engineer	--	--	\$2,400
Announcer	\$2,100	--	--
Operators	1,800	--	--
Other operating costs	<u>--</u>	<u>\$ 600</u>	<u>\$2,820</u>
Total WOI plant operation	<u>\$3,900</u>	<u>\$ 600</u>	<u>\$5,220</u>
Total WOI budget	\$6,310	\$3,110	\$5,220

^aFaculty members who participated in WOI programming were paid by their departments -- although this did not start immediately.

By 1940, radio was without a doubt the main medium for entertainment in the country and also heavily depended upon for news. WOI was housed in a new station by this time and had expanded to a 12-hour broadcasting day -- seven hours more a day than in 1927. This growing importance of radio is reflected in WOI's 1939-1940 budget estimate (Table 2).¹¹

Table 2. 1939-1940 fiscal year budget

	Agriculture Extension	Engineering Extension	General College	Total
Director WOI (Griffith)	\$ 2,700	\$ 1,200	--	\$ 3,900
Assistant Director WOI (Woolfries)	3,600	--	--	3,600
Engineer (Stewart)	--	2,500	--	2,500
Assistant Director News Service (Holmgren)	--	--	\$ 1,200	1,200
Women's Program Director (Ness/ Wilkins)	1,050	--	750	1,050
Reader (Wells - hourly time)	1,090	--	--	1,090
Stenographer	420	420	--	840
Stenographer (half-time)	384	--	--	384
Student announcers	1,000	--	--	1,000
Student operators	--	1,500	--	1,500
Operation costs	5,040	360	--	5,400
Office expenses	--	550	--	550
Program announcements	600	--	--	600
News service (wire)	1,430	--	--	1,430
Transcriptions (CBS)	1,320	--	--	1,320
Total WOI budget	\$19,834	\$ 6,430	\$ 1,950	\$26,364

Philosophy

The initial philosophy adhered to by WOI was one which reflected the station's pragmatic approach to radio broadcasting. Its earliest goals were to broadcast educational material relevant to Iowans' needs; provide market and weather reports to assist farmers and farm businesses;

and to include limited entertainment to add interest to its overall programming schedule.¹²

Iowa State College had a service to offer and a well-defined audience who it believed wanted and needed the information. Therefore, long, abstruse philosophical statements were not required to justify its existence.

D. C. Faber of Engineering Extension summarized WOI's purpose in two simple sentences, "WOI exists for the primary purpose of making available to the State via (radio) the services of the College. Therefore, the station should stand for education, information and such entertainment as will be recognized as Iowa State programs."¹³

By the early 1940s (the next available statement of purpose), a restatement of its philosophy reveals the growth and changes WOI experienced in the intervening years.

WOI, the College radio station, has the basic function of providing well-planned, well-conceived and well-produced programs on a public service basis to the people of Iowa. There is the double duty of furnishing programs of a practical and informative nature and programs with cultural and educational content. It is also apparent that the result will be good will for the institution.¹⁴

A long-standing policy at WOI was to avoid broadcasting political, religious, fraternal or other controversial subjects unless they were included in a lecture given by a member of the faculty. Its policy on public affairs broadcasts was very much conditioned by Iowa State's conservative publicity policy. It only allowed promotion of research done at the school. And, not until 1939 did the station's broadcast

schedule include an open forum program called "Let's Talk it Over," on which important political and social issues were discussed.¹⁵

WOI Staff

Although for some time the College exerted editorial control over WOI's program content, on the whole, the station was allowed considerable freedom throughout its development to "steer its own course." Griffith had been Director of WOI since 1927. This gave him full control over the technical and program arrangements of the station.¹⁶ Five years later, in 1932, the National Committee for Education by Radio pointed out that although a majority of educational stations did not have an autonomous organizational structure, it would be by far the most effective system for them. Most college stations still had the committee system of administration despite the problems it caused in organizing, presenting and securing approval of operations budgets.

For the next 21 years Griffith served as director, devoting his attention primarily to steering WOI through the maze of federal regulations and maintaining open lines between Iowa State administrators, Extension Service and WOI. As director, he was responsible for the yearly budget, which grew from \$14,640 in 1927-1928 to \$26,346 in 1940.¹⁷ His "lobbying" efforts on behalf of WOI enabled it to add equipment and personnel as they were needed to handle expanded hours and programming. Griffith was also a vocal and enthusiastic spokesman for educational radio in general. He served on the boards of several national organizations, including the National Association of

Educational Broadcasters and the National Committee on Education by Radio.¹⁸

But it was through announcers that most radio stations developed their "images." Some announcers became so popular that listeners tuned in specifically to hear them. This was the case with WOI's chief announcer, Andrew G. Woolfries, or "Andy" to his audience. For almost 20 years he was WOI radio to those who regularly tuned to the station. Necessity, combined with a natural talent, found him introducing entertainment programs, reading the news, giving play-by-play accounts of sports and delivering farm market reports -- all with an ease and confidence that made him seem like a personal friend to many Iowans who were regular listeners.¹⁹

His role as chief announcer of a college station also carried with it the responsibility of personally representing and interpreting the aims, spirit and life of the school to the radio audience. The College administration acknowledged the valuable asset they had in Woolfries when in the depths of the depression they increased his salary by 12 percent from \$2,400 to \$2,700 in order to keep him from being lured away by a commercial station where he had been offered a comparable position at higher pay. At a time when many faculty salaries were being cut, this was proof of his value not only to WOI but to the school as well.²⁰

Along with his versatility, Woolfries was a pioneer in programming. He was in the vanguard with his live coverage of Iowa State home

football games, news broadcasts, an early morning classical music program and book programs.

The extent to which WOI was personified by Woolfries became evident during the 1934 time allocation battle. When WOI asked Iowa daily and weekly newspapers to alert their readers to the situation, many of these publications appealed to their readers by using the one name most people immediately associated with WOI -- "Andy." The Rolfe Arrow, for example, wrote, "If you like 'Andy,' and his station WOI, Ames, drop him a line and say so and do it now.... His programs, news and market service and other features are too valuable to lose."²¹

Two other names synonymous with WOI programming were "Martha Duncan" and Ronald "Cap" Bentley. Better than anyone before or after her, Eleanor Wilkins as "Martha Duncan" represented the Home Economics Department on WOI radio. By combining her background training in home economics with a comfortable presentation before the microphone, she hosted the Homemakers' Half Hour so successfully that it competed well against commercial radio's homemaking programs.

Her on-air name evolved out of the station's desire to have a warm-sounding, "homey" name women could identify with. She first used it in a five-minute talk on meal planning tips in 1936 and carried it with her in 1939 when she moved into the Homemakers' Half Hour position.

For 27 years she greeted housewives every day at 10 a.m. Changing her program with the times, Martha carried generations of

listeners along with her. She did this in a way described best herself. "I've just tried to give the listeners what they needed and what they wanted in a way they wanted to receive it, softened around the edges with a feeling of human interest."²²

With her departure from broadcasting in 1966 came retirement of her adopted name and the Homemakers' Half Hour. She was the program. No one could sustain the tradition exemplified by the name "Martha Duncan." The Homemakers' Half Hour and Martha were heard for the last time on Thursday, June 30, 1966.²³

Another broadcaster helped make WOI's market reports the most listened to in the state: Ronald "Cap" Bentley. Working as an Extension specialist in grain marketing at Iowa State between 1937 and 1943, Bentley appeared regularly on WOI's farm programs. As an observer of economic trends during this time, he saw the growing need for better market news reports at the local market level for all products farmers produced for sale. He mingled with farmers, grain dealers and produce dealers, all of whom requested more information than they were getting from any source. When Bentley approached Griffith and Extension administrators about improving WOI's market service, they said, "All right, if you think it can be improved, how would you like to try?" And try he did, for the next 21 years as farm market editor. His greatest contributions were to make the market service broadcasts much more detailed and systematized. He organized all commodities into a daily sequence so that the same item appeared each hour, each day, every week or month in exactly the same spot and

within as narrow a time range for each program as possible.²⁴ This format has been carried down through the years and remains intact today. His consistent, accurate and yet conversational approach to broadcasting kept WOI ahead of all other Iowa radio stations in farm market broadcasting.

"Woolfries, Duncan and Bentley" sounds like a public relations firm; and with no stretch of the imagination they were just that for WOI and Iowa State. Each had the ability to search out and bring before WOI's microphones the best Iowa State had to offer. While doing this, they were also letting people know what it was like on campus for those who had family and friends here or who were interested in keeping up with the school's activities.

Defining WOI's Audience

Popular radio personalities have always been priceless assets for all stations. But listeners were drawn to radio by other factors too, and stations as well as networks eventually turned to researchers to find out what they were. Radio research, particularly audience measurement, developed slowly. It took a full decade of broadcasting for even the networks to earmark special funds for this purpose. But in the early 1930s networks began to invest large sums to measure program and advertising effectiveness. Audience measurement developed inevitably as a corollary of the upsurge of radio advertising. In fact, on commercial radio the value of air time by 1931 was already being measured in seconds -- an hour on NBC (National Broadcasting Company) cost a minimum of \$10,000. Furthermore, by this time

one-third of all Americans owned at least one radio and the potential audience for any single network program was tremendous. NBC figured it at 60 million people.²⁵

Educational stations were as interested in measuring audiences as was commercial radio. But their research methods were dictated by the funds available for that purpose -- almost non-existent in educational radio at this time. Thus, a majority of researchers resorted to crudely constructed surveys.

In 1930, a report on the state of the art in educational radio research criticized the mushroom growth of "amateurish questionnaires." Most of them were too vague and open ended to be useful measurement devices or research tools.²⁶ WOI was perhaps "amateurish" in its survey attempts. But at least the effort was made to "tap the pulse" of its audience. Griffith felt the station "should attempt to be of service to that part of the public that [could] make best use of its program material."²⁷ Surveys were periodically sent out to Farm Bureau offices, township directors, managers of livestock shipping companies, elevator managers, creamery and poultry and produce shipping associations. (See Appendix B.)

A method more frequently used at this time was the "mail pull" -- a check on the listeners' reactions to particular programs as measured by the number of letters received for each one. WOI was unusually successful in promoting and using mail pull to measure program response. The station's offer to send listeners information on request was its way of stimulating mail response. By using this

"something for nothing" tactic, WOI could analyze the requests and letters that came in to determine who were its listeners and where they lived.²⁸

Effective broadcasting range could also be determined by analyzing audience response. For instance, in 1928 WOI was able to determine that its effective range was 175 miles by the number of responses it received. Tabulations of these responses were used repeatedly to defend WOI's time and frequency allocations. This was particularly effective in the station's 1934 defense against encroachment by KFUD in St. Louis. But these letters measured only success -- not failure -- and they were no help in identifying ineffective programming on WOI. Furthermore, since radio was no longer a fad, mail response was beginning to slacken. On the whole, whether mail ever was an accurate check of listener reaction is doubtful, particularly since satisfied and dissatisfied listeners were most likely to respond.

In 1938, a study coordinated by the Federal Radio Education Committee in cooperation with the U.S. Office of Education gave WOI its first exposure to scientific measurement of its program effectiveness. In a project coordinated by Dr. Paul Lazarsfeld, Director of the Princeton Radio Research Bureau, researchers Alberta Curtis and H. B. Summers came to Iowa State to measure and analyze WOI's book, music, homemaking, vocational guidance and market programs.²⁹

Emanating from this research was a major restructuring of several programs, particularly around the noon hour, that were found to be

attracting few listeners at a time when the potential audience was comparatively large. Attracting an audience would be difficult because of WHO's well-established mid-day news broadcast. But an effort was made all the same to offer an alternative to commercial radio's news broadcasts. WOI replaced its locally produced noon farm news with the popular NBC network farm program "National Farm and Home Hour." Listenership increased significantly for this as well as the farm news program which was moved to an early morning spot -- 6:15 a.m. where, as research showed, more farmers were likely to listen to this type of information. In fact, the 6:15 a.m. spot drew ten times the response mail formerly received at noon.³⁰

The 1938 Princeton Radio Project also included a survey of rural Iowa radio listeners. The random sampling survey involved 5,771 families, giving WOI a good picture of where it stood against popular commercial Iowa stations.

According to the survey, WOI ranked fourth in stations tuned to most frequently during the day -- behind WHO, Des Moines (50,000 watts), WMT, Cedar Rapids, and WOW, Omaha (5,000 watts). The percentage breakdown is given below:³¹

<u>Farm</u>		<u>Town (<2,500)</u>		
WHO	51%	WHO	48%	
WMT	12%	WMT	11%	(The top four out
WOW	6%	WOW	10%	of a total of 23)
WOI	4%	WOI	6%	

Another analysis showed that 57 percent of the respondents named the station that came in the strongest as the one they most often

listened to -- giving WHO the best pull. Nevertheless, WOI's 5,000-watt signal and central location meant it could be heard in most counties, although somewhat unevenly. Despite this advantage, central Iowa's educational station did not fare well in the 1938 "popularity" contest.

WOI was aware it could not compete against entertainment-oriented stations. That battle had been decided more than a decade earlier where WOI's strength showed was in ratings of best liked individual programs. Out of a list of 60 programs receiving 25 or more mentions among 12,997 identifiable program listings, WOI's classical music program received 112 mentions, its markets received 75 (WHO's received only 25) and the WOI book-readings received 36 mentions from the 4,657 individuals queried.³²

An analysis of WOI's listenership showed that in 1938 it could be characterized as somewhat above the Iowa radio audience as a whole, economically and educationally, but at the same time older and somewhat more conservative. Moreover, these statistics verified what WOI had assumed all along, that Iowa State alumni and others interested in campus activities and information constituted a significant portion of its audience.

The Princeton Radio Project's researcher, Alberta Curtis, questioned WOI's ability to maintain its current standing as attitudes toward commercial radio changed. WOI attracted listeners who disliked advertisements and popular music. But Curtis said younger people, having grown up with commercial radio, would be less inclined

to reject it, leaving WOI without its loyal audience. Her suggestion for preventing this gradual erosion of listeners was to experiment with programs that would attract new, younger listeners. But she tempered this with the suggestion that WOI continue its approach of addressing itself to leadership in ideas rather than in the kind of success desired by commercial stations.³³

Audience measurement was still in its infancy, particularly for educational stations. Although lacking adequate financial support to do such research, WOI and other educational stations realized this would become more important. The 1930s and 1940s were radio's heyday and commercial broadcasting already had won a majority of the listeners. The 1934 Communications Act had given a resounding "no" to educational stations asking for reserved frequencies in light of the services they did and could offer. So, by 1940, these stations were being told by organizations such as the Institute for Education by Radio to survive they would have to get out into the market place and sell their special programming.

WOI'S Growth

In order to sell itself, WOI first had to be heard. In the earliest years, this proved to be a major stumbling block. Only by constantly modifying its equipment, could the station be assured of a relatively clear voice. Not until 1927 with its newly constructed 5,000-watt transmitter was WOI confident its programs could be received by a majority of rural Iowans. This transmitter beamed its message in a 125-mile radius from Ames. Two recording

studios, separated by a broadcasting booth, were draped with heavy velvet material and carpets, all necessary to reduce echoes.³⁴ The main studio was large enough to hold the 160-member Iowa State College Orchestra or any of the large glee clubs that regularly performed before the WOI microphones.

The third floor of the Engineering Annex was WOI's home for more than 18 years. During that period, broadcasting hours greatly expanded from less than two hours a day in 1924 to almost nine hours a day in 1933. By this time, crowded conditions prompted Griffith to begin lobbying for a new home. Year by year the annex location was growing noisier because the ceramics department, located directly below WOI on the second floor, had installed some heavy machinery. This introduced a low-frequency rumble that frequently made it impossible to use the sensitive microphones that were designed for the studio. Some of the furniture and velvet had been installed in 1924 and were beginning to look ragged.

In his 1934 Annual Report, Griffith speculated on possible relocation sites. Quarters in a proposed new Extension building, new music and art building or some rooms in the Memorial Union -- all were mentioned as suitable relocation sites. Aware that 1934 was not a good year to propose unusual expenditures, Griffith conceded that remodeling the present studio would also help to alleviate the problems.³⁵

The most appreciated addition to WOI's equipment was air conditioning, installed in 1936. Temperatures as high as 108 degrees in

the summers of 1934 and 1935 occasionally made it impossible to continue broadcasting.

Another problem was with WOI's antenna system, which had come under fire from the Federal Communication Commission as early as 1929. The station was warned repeatedly that the six-wire horizontal system was no longer considered adequate or efficient. The presence of the water tank and other nearby buildings reduced its effectiveness. The ground system, installed in 1922, had almost totally corroded and was no longer effective, leaving the steel framework of the Engineering Annex itself the sole protection against lightning damage.³⁶

The onset of the Depression prevented the College administration from considering expensive additions to WOI's physical plant and even the FCC refrained from demanding antenna construction. But, in 1936 a proposal was submitted to the administration to build a 400-foot vertical antenna on a site north of the Armory. With a grant from the Public Works Administration for 45 percent of the cost, the tower was finally built in 1938 for \$8,174 by the J. E. Lovejoy Company, Des Moines, Iowa. The free-standing triangular-shaped steel tower was designed to withstand a wind velocity of 90 miles per hour.³⁷ This new antenna increased WOI's signal as much as doubling its power would have. It also doubled the area of satisfactory reception, especially improving service to southern Iowa.

Less than a year after the new antenna was put into service, WOI moved into its first specially designed quarters on the third floor of Snedecor Hall (formerly called the Service Building) just west of

the Iowa State College Library. Since 1933, Griffith had vigorously campaigned for larger facilities for the station and six years later WOI finally moved across the campus to its new home.

The new facility cost \$149,816, with 45 percent of that amount covered by another PWA grant. Along with new studios, a new 5,000-watt RCA transmitter replaced equipment which had been rebuilt several times, parts of which had been used as long as 18 years. This single piece of equipment cost \$29,767 and was also purchased with the help of a PWA grant.

Dubbed a "miniature Radio City," the new studios contained the latest in soundproof construction, with walls and floors suspended on felt bases, insulating it from the rest of the building to eliminate unnecessary vibrations. Recording studios were equipped with triple glass windows and double doors to insulate them against disruptive noises. In addition to three studios, the new facility contained a lobby, four offices, a WOI workshop for student training, a control room and a transmitter room.

Recording equipment was purchased that same year, enabling WOI to record live performances for future use on WOI programs, transcribe material for use by Agriculture Extension on other broadcasting stations, and make permanent records of personalities and performances for WOI's permanent record library. Funds for this equipment were made available jointly from Agriculture Extension and the College general fund.

* * * *

According to Griffith, "WOI was like Topsy -- it just grewed." But there was more to it than that. It was not spared the growing pains experienced by all radio stations. WOI survived with the help of an enlightened College administration and an Extension Service willing to support it against encroachment attempts by other stations and neglect by the federal government. Another supporting factor was its staff of radio personalities who enabled WOI to maintain personal contact with its audience, giving WOI a special sound unduplicated on commercial radio in Iowa.

These factors also played a major role in WOI's efforts to fulfill its mandated mission -- to provide broadcasting services to rural Iowans. Unlike any other station in Iowa, WOI catered to this population by exploiting the resources found on the campus of Iowa State. For this reason, WOI quickly became synonymous with farm broadcasting in Iowa.

Footnotes

- ¹ S. E. Frost, Jr., Is American Radio Democratic? (Chicago: The University of Chicago, 1937), p. 219.
- ² D. C. Faber, "Report on Radio Broadcasting Station," WOI History Files, Radio Station WOI, Ames, Iowa, January, 1926.
- ³ WOI's annual operating costs were \$16,640 in 1927.
- ⁴ Anson Marston, "Iowa State College Broadcasting Station WOI," (Report to President R. Highes), WOI History Files, Radio Station WOI, Ames, Iowa, December 24, 1927, p. 11.
- ⁵ Erik Barnouw, A Tower of Babel: A History of Broadcasting in The United States, Vol. I -- 1933 (New York: Oxford University Press, 1966), pp. 177-178.
- ⁶ For example, Iowa State Board of Education Minutes, Nov. 4-5, 1927, Vol. 6, p. 645, and May 26-27, 1931, Vol. 8, p. 621.
- ⁷ S. E. Frost, Jr., "The Licensing of Educational Broadcasting Stations," in Eighth Yearbook of the Institute for Education by Radio, ed. Josephine MacLatchy (Columbus, Ohio: Ohio State Univ., 1937), pp. 52-53.
- ⁸ Iowa State Board of Education Minutes, November 4-5, 1927, Vol. 6, p. 645, and May 26-27, 1931, Vol. 8, p. 621.
- ⁹ John C. Baker, Farm Broadcasting: The First Sixty Years, (Ames, Iowa: Iowa State University Press, 1981), p. 123.
- ¹⁰ W. I. Griffith, "1927-28 Annual Report," WOI History Files, Radio Station WOI, Ames, Iowa, p. 9.
- ¹¹ Griffith, "1939 Annual Report," p. 56.
- ¹² Griffith, "1925-26 Annual Report," p. 5.
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CHAPTER V. FULFILLING THE MISSION --
FARM BROADCASTING AND NEWSCASTS

From the outset, the farmer was truly one of radio's favorite targets. "No one talked much about radio programs for accountants or carpenters, but the value of radio programs for the farmer was clear from the beginning."¹ The federal government was experimenting with wireless transmission of agricultural statistics as early as 1915 and, in 1920, the Federal Bureau of Markets offered the first Radio Market News Service. Daily reports were sent out in Morse code on all major crops grown in 22 Eastern and Midwestern states. United States Department of Agriculture representatives stationed in each of these states (including Des Moines, Iowa) sent local market statistics to Washington, D.C., where regional figures were compiled and made available to telegraph companies, the press associations and commercial news agencies.² Farmers and farm businessmen had access to this information through their county agents, Farm Bureaus, post offices, banks and even the local telephone exchange operators.

This service fulfilled such an important function that by 1922 producers, distributors and others came to depend almost entirely upon the Department for their market information.³ With the development of voice capability and the subsequent growth of radio receiver ownership among farmers, this information became as important to them as daily weather forecasts.

Thus, from the beginning, radio had a tremendous impact on the lives of farmers in this country. Midwest farmers in particular

benefited from the special attention given them by radio broadcasters. They had larger farms and larger cash incomes than the national average and were more receptive to innovations that could improve their livelihoods.⁴

Farm Broadcasting on WOI

Iowa farmers were no exception in their use and eventual dependency on radio. Along with the rest of the state's population, they either built their own radio receivers or stood in line to buy them. Assessors' records showed in 1925 that 43,968, or almost 21 percent of all Iowa farmers, had radios. Just five years later that number had more than doubled to 102,938, and nearly every other farm in the state was equipped with a radio.⁵

Those few farmers who had radios before 1921 could pick up the Ames station's weather forecasts and livestock reports only if they knew Morse code. These earliest messages were primarily for the benefit of stock and grain dealers who then posted the deciphered reports in their offices for customers. A major change occurred in 1921 when the station went to voice transmissions. Farmers turned more and more to WOI to get immediate reports, even though the initial farm news programs were quite limited in time and scope. Less than a year later WOI had begun a daily service to farmers. Starting on June 13, 1922, weather forecasts and livestock reports were given at regular intervals beginning at 10 a.m. and continuing during the day six days a week.⁶

Livestock reports were sent to the station by Morse code from the Naval Training School station (NAJ) near Chicago. Woolfries or Fritschel transcribed the messages for later broadcasts. The Weather forecasts were broadcast live from U.S. Regional Weather Bureau stations assigned to 618 kHz. -- the frequency reserved for all official reports from the federal government. Broadcast stations were prohibited from rebroadcasting these reports on 833.3 kHz., as this frequency, by law, was only for "general broadcasting." So, both WOI and listeners interested in receiving up-to-the-minute weather reports had to dial to 618 kHz. at designated times. After the report, both listeners and the station operator would scramble back to 833.3 kHz. for the remainder of the program.⁷

The Extension Connection

Most of the regularly scheduled programs broadcast over WOI during its earliest years were possible because of Extension Service. Since 1906, the Iowa Extension Service had worked closely with scientists and researchers at Iowa State, interpreting facts and presenting recommendations to improve farming practices and rural living conditions. But, as Bliss, head of Extension Service at Iowa State, pointed out in 1921, it was a "physical and mental impossibility for one or two agents to meet with all the farmers in one county who desired information from Extension Service."⁸ Thus, radio automatically became a handmaiden of Extension and was quickly integrated into its many information programs.

WOI hadn't been on the air six months before its potential as an educator became apparent, especially in the area of agriculture. The prime mover was Bliss. He perceived how useful radio could be in Extension's efforts to reach Iowa farmers. Woolfries recalls his first conversation with Bliss in 1922 in which the head of Extension "saw the radio as a chance for Extension people to simply come across campus, talk into the microphone and reach hundreds and eventually thousands of interested people."⁹

But many farmers still did not own radios. So the initial plan was to use WOI as a medium through which Extension experts on campus could communicate directly with the county agents throughout the state. Although the Extension Service did not supply agents with radios, many agents quickly realized the need to furnish their offices with a wireless because of the information that could be passed on to farmers in their area. Extension saw radio as a "strong connecting link" between the college and its agents. But as early as 1922, college experts were predicting that "eventually many farmers will have radios of their own and will be able to receive the messages (directly) from (WOI)."¹⁰

According to assessors' records, the number of farmers who could benefit directly from up-to-the-minute market reports and agricultural talks was growing rapidly. The 1926 WOI Annual Report showed that 33 percent of all Iowa farms had a radio.¹¹ Griffith saw in this an indication "that the farmer and his family are through with

considering radio as a plaything and are interested in good programs and the reception of reliable information."¹²

In Iowa, radio freed Extension agents to concentrate on county-wide programs instead of one-on-one efforts that dominated their time before radio. Extension short courses were quickly transferred to radio. These courses covered everything from poultry and dairy husbandry to automobile operation. A series of lectures on a topic lasted from three to ten weeks with several topics offered during the week. Copies of study guides were available at Extension offices and were used to follow along while listening to the radio courses. These courses were initially very successful. When Professor H. A. Bittenbender's poultry science short course was offered on radio for the first time in 1926, between 7,000 and 8,000 requests came in for the ten-lesson packet. Never before had so many people simultaneously indicated an interest in such a course.¹³

By 1926, Home Economics, Agriculture and Engineering Extension programs filled a majority of that year's 600 broadcasting hours. The importance attached to Extension programming was evident in Griffith's 1926 Annual Report, which stressed the need for increased transmitter power to reach more farmers with Extension information.¹⁴

Farm listenership was further stimulated in 1926 by the introduction of up-to-the-minute market reports made possible by the installation of a wire to receive USDA market information. To take advantage of this growing audience, Extension Service brought more of its

specialists to the radio studio, and a noon-hour program was added to answer questions sent in by listeners.

Home Economics Extension was particularly active in contributing to the Homemakers' Half Hour, WOI's most popular women's program. This cooperative effort meant WOI could offer Extension bulletins related to Half Hour topics -- an offer thousands of women took advantage of every year. Tallies were made of bulletin requests to gauge audience size and homemakers' interests as well as to plan future program topics. Requests increased as radio ownership increased and the program went to a daily (except Sunday), year-round feature.¹⁵

During the great Depression of the 1930s, radio was used intensively by Extension to help farmers through the numerous changes introduced by the Roosevelt administration. It informed farmers about the Agriculture Adjustment Act in 1933, the corn-hog adjustment program, and in 1936 the farm adjustment program that took crops out of production and promoted soil conservation. Thanks largely to radio, Extension was able to carry out one of the most comprehensive educational campaigns ever attempted in the state.¹⁶

To broaden the scope of Extension-related programming, National Broadcasting Company's network farm program, the "National Farm and Home Hour," was brought to WOI in 1938. The program included talks from USDA specialists in Washington, other land grant college officials and prominent farm leaders from outside of Iowa.¹⁷ Broadcasting this commercial network program was made possible with the cooperation of KSO in Des Moines. KSO had carried the National Farm and Home Hour

for some time but was finding it increasingly difficult to secure local sponsorship for it. When Woolfries heard about this problem he approached KSO with the suggestion that if it could get permission from NBC to transfer the program, WOI would like to broadcast it. Since networks regularly shared their programs, they agreed to the arrangement. KSO paid for the wire between Des Moines and Ames and the National Farm and Home Hour was aired at 11:30 a.m. each week day for the next seven years.¹⁸ The only problem arising from this "commercial connection" was WOI's long-standing policy not to carry advertisements. Fortunately, only the last 15 minutes of the hour-long program contained commercials so WOI simply limited the broadcast to the first 45 commercial-free minutes. The program ended in 1946 when networks tightened their control over program sponsorship.

Thus, for Iowa State, and other land grant institutions, the Extension connection breathed life into fledgling radio stations that otherwise would have found it difficult, if not impossible, to offer their audiences enough programming to justify the necessary investment it took to operate their stations. The financial and moral support afforded by Extension served as an essential buffer when commercial stations challenged land grant stations for their frequencies or tried to encroach on their time allotments.

While the justification was there, the expectations of educators and Extension Services around the county were so overly optimistic as to the role radio would play in improving farmers' lives, that reason

did not always prevail when it came to adapting Extension information campaigns to radio.

Radio presented difficulties for those trying to adopt teaching methods to this new medium. A message had to be crystal clear the first time to be effective. Other problems included distractions to the listener and the lack of illustrations. Both called for careful organization of materials presented on radio. Depending on radio to do the teaching without the follow-up support of field demonstrations, printed material and personal contact also had its weaknesses.¹⁹ But it was not just a lack of technique that caused concern among Extension radio personnel. By the late 1920s, surveys showed a steady decline in the "percentage of listeners receiving Extension radio programs who said they adopted improved practices (because of radio) broadcasts."²⁰ Morse Salisbury, Chief of Radio Services for the USDA at the time, believed this showed as people became more accustomed to radio broadcasting, it became less potent in their minds as the "final push that sets them to practicing a recommended method." Instead, radio seemed more important in arousing initial interest in a practice. Farmers attributed actual change to bulletins or information given by a county agent upon request, perhaps inspired by a radio broadcast.²¹

Research done in 1938 by H. B. Summers supported those early survey results. Summers' survey of rural Iowa radio listeners showed they consistently down-rated farm talk shows, and listened to them far less than to entertainment or news on radio.²² This

suggested that programs like WOI's "Farm Facts" and other farming technique discussions were not having the effect educators and Extension Service believed they would. Instead, Extension bulletin requests arising from farm radio programs better reflected WOI's success in increasing listeners' awareness and interest but did not lead to attitude or behavior change.

In response to these findings, schedule and program changes were made in 1939 to reach farmers at better times and give them more "abbreviated" information instead of trying to "educate" them. Salisbury recommended that farm broadcasters "use radio as the spark plug of the machine" instead of treating it as the entire engine, and WOI and Extension shifted their focus to do this.²³

Farm Market Reports

Farmers most appreciated and depended upon the market reports from WOI. Fluctuations in commodity supplies and prices had a direct influence on farmers, making it essential that they had easy access to regularly updated reports. Unhampered by sponsors' demands, WOI was able to devote more time and effort in accumulating and disseminating this information than were commercial stations. The result was a large and loyal audience of farmers and livestock and grain dealers who could count on regular up-to-the-minute market prices. Using Morse code, Iowa State's engineering department had offered abbreviated market reports as early as 1914. And, with the advent of voice transmission, an expanded version offered them reports from state livestock dealers and Chicago meat and grain quotations.

By 1926, farmers' growing dependence on WOI's reports prompted Griffith to request that the USDA establish a direct wire service at the station, in order to receive the latest livestock figures from 12 Midwest markets as reported by Federal Market News Reporters.²⁴ The USDA apparently recognized the value of WOI's service to area farmers and granted the station a yearly appropriation of \$6,500 to pay for the leased wire and provided an operator to receive the daily information. This gave Iowa State the distinction of being the only land grant college or university provided with this USDA service at that time. The leased wire proved so reliable that many Iowa grain and livestock centers cancelled their own Western Union wire and, instead, tuned into WOI for daily market information. As an added service, WOI made available on request a preprinted 10-cent pad on which to copy quotations as they were broadcast.²⁵

A year later, prices paid for hogs were added to the broadcast and during the early 1930s these Iowa and southern Minnesota hog market reports became one of the most listened-to broadcasts in the state. Since Iowa was marketing almost 26 percent of all hogs in the United States by 1933, it is little wonder why this service was held in such esteem by farmers and livestock dealers. "Cap" Bentley also pointed out a long-term effect of these reports when he wrote, "...the bulk of the producers, dealers and processors were all armed with the same market information (bringing) stability to the hog market in Iowa."²⁶

However, during the summer of 1933, the regular USDA livestock report was dropped as a federally-mandated economy measure. Within days of this announced cancellation, WOI was flooded with protest mail even though it was not responsible for the cutback. Griffith suggested to the protesting listeners if they were interested in regaining this market service, they should write to Henry Wallace, Secretary of Agriculture, Iowan and alumnus of Iowa State College. His suggestion was heeded by enough farmers and dealers so that by September, 1933, the service was fully restored.²⁷

Market reports went out over WOI six times daily, every day except Sunday, averaging 20 minutes per broadcast. Almost two hours of the ten-hour broadcasting day were devoted to these service reports during the mid 1930s. They were more numerous and detailed on WOI than on any other station in the state. This gave WOI a great advantage with farmers, even though it cost listenership among the "general radio audience" during the broadcasts.

H. B. Summers' 1938 rural Iowa radio listener survey showed WOI was giving farmers what they felt they needed to survive and prosper in their operations. The Ames station had cornered the market on service reports. Some 75 percent of Iowans who listened to market reports did so on WOI. The nearest rival -- WHO -- was mentioned by fewer than 25 percent of the listeners.²⁸

The most reassuring proof came from listeners themselves. Extension people working in the counties often heard comments about the usefulness and dependability of WOI's market service. Letters, too,

reassured the station that its efforts were worthwhile. One man from Red Oak in southwest Iowa wrote, "...just to assure you that when it comes to service you are absolutely the best on the air...you are the most depended on of any station."²⁹

News Broadcasting

The growing dependency of rural Iowans on radio for service reports is just one example of the pervasive influence radio was beginning to have on the entire nation. Particularly in the 1930s, radio was the medium for entertainment. It also was becoming the medium of news. The 1938 Princeton Radio Project survey showed radio was the chief source of news for men and women, rural and urban alike.³⁰ But this preference took some time to develop.

News broadcasts were initially used only as "filler" material between programs or when unexpected delays occurred during entertainment programming. News was the business of newspapers, not radio stations. Even if a station was owned by a newspaper (increasingly common in the 1930s), the news was only given as "teaser" items to increase newspaper sales.³¹ Other radio stations simply "borrowed" stories from newspapers, wire services or magazines when preparing their short newscasts. Even networks did not make systematic efforts to establish a radio news-gathering system until 1934.

WOI started regular news broadcasts in 1929. The station could not afford a news wire service at that time, so Woolfries selected items from the Des Moines Register and Tribune and the Ames Tribune Times which he then read once during the day.³² This routine continued

until 1933 when a slowly-simmering feud between newspapers and radio heated to an all-out war. It was then that newspaper publishers, through their associations, demanded that the three wire services -- Associated Press, United Press and the International News Service -- stop selling news to radio.

Until then, the relationship between radio and the print media had been one of cooperation in serving the public interest. But the enormous success of radio gradually nibbled away at this cooperative effort. By 1933, "newspapers' revenues were dwindling as readers and advertisers turned to radio."³³ Thus, when newspapers also began to feel the pinch of the Depression, publishers clearly felt economically threatened and forced the wire services to refuse to provide news to radio clients.

The radio networks countered this "boycott" by forming their own news-gathering organizations. In response, the American Newspaper Publishers Association singled out the Columbia Broadcasting System by imposing a complete blackout on publicity about CBS radio programming. This display of power frightened sponsors of CBS programs and within months the networks agreed to guidelines laid down by the ANPA and the wire services. Thereafter, only short bulletins could be read at designated hours during the day and news commentators could not use news that was less than 12 hours old on their radio reports.³⁴

A Press-Radio Bureau was organized to supply broadcasters with wire service bulletins -- for a fee. As a result, stations such as WOI, which could not afford this direct wire service and felt it was

inadequate in the first place, still lacked a replacement for their daily newscasts. In an attempt to continue some kind of news service, Woolfries invited smaller Iowa daily and weekly newspapers to send in their editorials to be read in place of the news. Editors around the state loved the idea: not only was it a feather in their caps to be mentioned on the radio -- they were also getting some free advertising over WOI.³⁵

But less than a year later the effort by newspapers to muffle radio newscasts began to deteriorate. The Radio-Press agreement was so restrictive that many stations opted for no news rather than the "teaser" bulletins the agreement allowed them to read over the air.³⁶ Several independent news services had also begun to fill the vacuum and soon the "treaty" provisions were all but ignored. Also born during this crisis, but not necessarily a product of it, was the sponsored news broadcast. Before this time, news had generally been carried as a public service. But the United Press and the International News Service could not resist selling their services to stations which had acquired sponsors that would pay the fees.³⁷ Thus, this short but intense "news war" showed newspapers that, "...news broadcasts were too important a service to the general public to permit the wishes of a few to prevent the service from being rendered."³⁸

That public service argument, coupled with the growing popularity of news broadcasts, helped WOI to finally convince the College administration in 1936 of the station's need for a news wire service. In this era before federal regulation of monopolies, WOI could not

subscribe to a wire service without the permission of other users in the area. In this case, the Ames Tribune Times agreed not to exercise its veto powers and to allow the station to subscribe to United Press. The service cost \$30 a week, or \$1,560 a year -- a hefty sum for those days.³⁹ Since WOI's studios were already crowded and the College was footing the bill, Blair Converse, chairman of Technical Journalism, requested that WOI share the wire with his department. When the UP printer arrived, it was not installed in WOI's studios, but across campus in the Agricultural Annex (now East Hall), where journalism was housed. A small remote studio was constructed in a former elevator shaft in the building.

The addition of the United Press printer enabled WOI to expand its news broadcasts from one per day to five newscasts each weekday. These newscasts were also used as a training device for future broadcasters studying journalism at Iowa State. They were coordinated by Ron Holmgren, the part-time news director who was hired in 1938 and who oversaw preparation and delivery of the news. Campus news was also included in some of the mid-day newscasts. When the station moved to its new facilities in the Service Building, news broadcasts were once again prepared and read from WOI's main studios. However, students continued to serve as part-time news readers and training facilities were established for broadcast students in the new studios.

* * * *

Radios were luxury items in most farm homes when WOI began to broadcast farm information in 1921. But it was not long before radios became a common household possession on most farms and WOI played a role in making this so. Extension information and market reports filled a majority of WOI's broadcasting hours during its earliest years, and farmers particularly needed updated grain and livestock quotations along with weather information. Thus, as radios on Iowa farms increased so did WOI's broadcasting hours that were devoted to farm information. News reporting on WOI grew in importance over the years as well. Mass communication innovations enabled radio to inform people of newsworthy events around the world within hours of their occurrence. WOI recognized the growing importance and popularity of newscasts and secured a wire service after finally convincing the college administration of this need. Once again the resources of the school were called upon to give WOI listeners what they had come to expect.

Although farmers were an important audience that WOI constantly strove to cultivate and keep, other special interest groups were also attracted by WOI's open door policy. Its willingness to expand its audience to include such groups as women, parents and numerous societies helped WOI establish an even broader listening base.

Footnotes

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CHAPTER VI. BROADENING THE MISSION --
WOMEN'S PROGRAMMING AND OTHER EDUCATIONAL BROADCASTING

The farmer may indeed have been one of radio's "favorite children" in the beginning, but it was not long before broadcasters realized there were other groups of potential listeners out there. Commercial radio carried entertainment programs, produced for nighttime listeners, which appealed to everyone of all ages. But daytime radio, depending on the location and type of station, spoke to more specialized groups such as women, children and music lovers.

Radio turned to women first, and housewives in particular. Tagged the "housewives' electronic liberator," radio freed them, at least mentally, from the endless routine of daily household chores. It was the first medium that offered them one-to-one intimacy -- something missed by many women, especially those in rural areas.¹ By the mid 1930s soap operas, the "great escape" for millions of women at home, occupied a majority of daytime radio. In 1938, there were at least 38 sponsored serials broadcast throughout the day and the number was still growing.²

Before daytime radio was monopolized by serials, the bulk of women's programming was devoted to homemaking features. A 1938 survey by the American Home Economics Association showed that 49 of the 53 stations responding carried home economics programs.³ One of the earliest popular homemaker's programs was called the "Housekeeper's Chat." It was produced by the USDA and aimed mainly at rural women. Featuring Aunt Sammy (Uncle Sam's wife) for 15 minutes each day, five

days a week, it offered advice on "what to feed the family for dinner, how to clean house most efficiently, how to fix leaky faucets and how to raise both vegetables and babies."⁴

Women's Programming on WOI

If the federal government was quick to see the potential in women's programs, WOI was even quicker. Short lectures by the Home Economics faculty were broadcast as early as 1925. With highly qualified staffs in Home Economics and the Extension Service on campus, "No institution [was] better able to serve a radio audience of women than Iowa State," according to a 1926 report.⁵ To be assured there would be qualified representatives from Home Economics to work with WOI, prospective faculty members were informed that they were expected to participate in broadcasts produced by their departments.

The "Homemakers' Half Hour" program represented the Division of Home Economics' contribution to radio. Beginning as a twice-weekly question and answer feature in 1926, it evolved into a daily informal dialogue and interview format by 1939. Although filled with information for homemakers, this program was also a form of entertainment for many women. Only months after the program began, women around the state formed Homemakers' Radio Clubs -- congregating in each others' homes to listen, discuss the topics and suggest ideas for future programs. Not only were homemaking, child care and family life discussed, but art and music were also brought to the Half Hour. An art appreciation course was supplemented with prints of masterpieces, sent on request, to study while the lecture series was aired.

The course was so popular -- over 330 copies of prints were requested for one session alone -- it was repeated several times. Other educational and even commercial stations heard about this success and patterned their own study series for women after the Half Hour's course.⁶

Because the Homemakers' Half Hour used Home Economics Extension specialists on the program, free follow-up bulletins could be sent to listeners upon request. Responding to these requests not only helped Extension fulfill its mandated function, but also enabled WOI to estimate the size and composition of this audience. Chronological studies on the popularity of homemaking programs showed there was a trend toward increased use of radio for homemaking information during the 1930s. This trend was reflected in the demand for bulletins from the Homemakers' Half Hour. Requests for copies of talks and Extension bulletins grew from 5,000 in 1929-30 to well over 150,000 in 1937-38.⁷

When the Half Hour became a daily program in 1931, a remote studio was installed in the Home Economics building (MacKay Hall) to make broadcasting more convenient for the Home Economics staff and Extension specialists interviewed on the program. Margaret Haggert, Homemakers' Half Hour first hostess, retired in 1928 and was replaced by Zenobia Ness, who held that position for the next ten years.

Alberta Curtis, researcher for the Princeton Radio Project, evaluated how well the Half Hour satisfied the needs of women who listened to it. She found, while its audience was large enough to

justify the effort involved in producing the show, there seemed to be a definite opportunity for "greater variety of information on homemaking." In order to compete with the pervasive soap operas, Curtis recommended that the program be produced with an eye to enhancing its entertainment value to women by presenting "smooth performances."⁸

Based on these criticisms, WOI and Home Economics set about to change the Half Hour's image in line with Curtis' recommendations. A crucial change came when Eleanor Wilkins was hired in 1939 to replace Ness as the new women's programming director and hostess for the Homemakers' Half Hour. Wilkins brought with her the skills she used as food purchaser for the Foods and Nutrition department at Iowa State. This enabled her to inform women about the selection and preparation of foods -- something Curtis' research indicated they were looking for in homemaking programs. Along with these skills, Wilkins, known to her listeners as "Martha Duncan," brought along with her "a journalist's nose for news, an actress' flair for the dramatic and a business woman's way of doing things."⁹

This combination proved to be the key to revitalizing the Homemakers' Half Hour. Until 1966, Wilkins hosted the Half Hour and several other women's programs on WOI radio and later on WOI-TV. By that time, the program was so closely associated with Wilkins and womens' needs had changed to the extent that the Half Hour was discontinued upon her retirement.

A popular children's program that "outgrew" Homemakers' Half Hour was "From the Story Book " (later called the Children's Corner). Edith Sunderlin, Professor of Child Development and Chairman of the Iowa State Nursery School, read children's stories on the Homemakers' Half Hour in the late 1930s. In 1940, she was given a program of her own, reading to preschoolers for a quarter of an hour, three times a week.

Over the next 20 years she read more than 3,000 stories -- repeating all-time favorites such as In the Grass and Pinky Marie time and again, by request, to share them with each new group of young listeners. Few programs of this type were ever attempted on radio because many reading and child development experts believed pre-school children would not listen to stories read over the air. But the approach taken by Sunderlin won her a long and loyal following of pre-school listeners. She read to them "as if a child was on my knee," Sunderlin recalls.¹⁰ When the Campanile struck 11 times over WOI, followed by the first few chords of Hayden's Toy Symphony, children knew that the "story book lady" was about to begin reading. Her program ended in 1959 -- a victim of the popular rush of children's entertainment from radio to television.

Other Educational Programming

Throughout the years WOI's largest audience was composed of farmers, book lovers and classical music lovers. While a majority of its broadcasting time was devoted to serving these listeners, the station also addressed itself to dozens of other special interest

groups over the years. Although most did not attract many listeners, WOI's philosophy was that the station should provide types of programming various groups in the WOI listening area would benefit from.¹¹ For this reason, numerous Iowa organizations with sizable memberships in the state were invited to use WOI's facilities. And starting in the mid 1920s, many groups accepted the invitation to address their members and other interested listeners. Farm groups such as the Iowa Farm Bureau, the Iowa Grange and 4-H groups were regular participants. The Parent Teachers Association, American Legion, Iowa State Medical Society and Women's Federated Clubs were just a few of the other organizations that took advantage of this free air time.

This kind of educational programming effort did not extend to classroom instruction. WOI focused on adult instead of primary or secondary education. But occasional programs were offered to assist high schools around the state. Faculty lecturers from the departments of English, speech, the agricultural sciences and home economics participated in programs starting in 1936. The vocational education department cooperated with WOI to present an especially successful program that introduced high school students to the advantages and disadvantages of various professions and vocations. Over 100 high schools signed up the first year it was offered in 1937. Thereafter it remained a popular program and continued through the 1940s.¹²

During its first 20 years, WOI provided limited public affairs programming, particularly on matters relating to politics and economics. This practice stemmed in part from the College's policy to "...take

sides in no movement except as its own research and the findings of its own staff serves as the basis for such advocacy."¹³ This statement protected the College against the claims of legislators and political groups seeking to use it as an outlet for publicity with which the College authorities did not agree. Although there was no ban against political discussion on WOI, neither was there a tradition of presenting extemporaneous discussions on both sides of burning issues. There were, however, radio forums as early as 1933 on which salient agricultural issues were discussed or government policies such as the social security system or Iowa income taxes were presented. But these were structured presentations, read from scripts and not intended to elicit spontaneous responses.

Formal debates were also broadcast over WOI beginning in 1930, sponsored by the Department of Public Speaking at Iowa State. Again, the formal structure of the debates prevented the free flow of ideas that "action" programming would have encouraged. At the conclusion of her research in 1938, Alberta Curtis noted that educational stations could little afford to "lag behind commercial stations in presenting programs on issues of political and social importance," and that it was doubtful if they were "making the most of an opportunity to stimulate social thinking" considering the growing interest in current affairs.¹⁴ These comments prompted WOI to introduce two public affairs programs in 1939. "Let's Talk it Over" brought faculty members and off-campus guests bi-weekly into WOI's studio to express themselves freely and informally about current social and political

affairs. This feature alternated with "Young Ideas," a program that brought Iowa State students and faculty members together for 25 minutes of open discussion about student and college-related problems.¹⁵

Cooperative Programming

Meanwhile, WSUI at Iowa City was doing essentially the same kind of educational broadcasting based on that University's social science orientation. But, WSUI's eastern location prevented it from reaching into central and western counties -- its range was about 80 miles. WOI, with its central location and 5,000-watt transmitter, reached most Iowa counties but was weak in the counties bordering adjacent states. This problem and the desire to introduce more variety into their schedules brought the two stations together in a cooperative effort that continues to this day.

The longest running and most successful cooperative venture was the Radio Child Study Club. In 1933 it was simultaneously broadcast on WOI, WSUI and the remote broadcasting studio at Iowa State Teachers College in Cedar Falls, Iowa. The Radio Child Study Club was initiated by the Iowa Child Welfare Research Station in Iowa City with faculty from the three schools taking turns preparing short talks which were followed by round-table discussions on how to deal with family, pre-school and adolescent problems. Study groups were formed around the state to discuss the topics using reading materials recommended by the research station. The Study Club was developed to the point that identical programs were given weekly in the afternoon over WOI and on the same evening over WSUI so groups might choose at their

convenience either a day or night hour. These programs were also re-broadcast at the same time over both stations.¹⁶ By 1940, there were over 150 study groups of ten or more members each participating in the program. The Radio Child Study Club ran for 22 years, leaving the air in 1955.¹⁷

Another major cooperative effort began in 1937 when WOI and WSUI began an educational network using special receivers for picking up 18 hours monthly of each other's programs. After experimentation for about a year, the plan was put into operation. This allowed for statewide coverage of programs by the Iowa Federation of Women's Clubs, Daughters of the American Revolution, Iowa League of Women Voters, Radio Child Study Clubs, Iowa Congress of Parents and Teachers, American Legion Auxiliary, Iowa State Medical Society and the Junior Academy of Science. Many of the above programs originated in Iowa City. In return, Iowa State College sent over programs such as the daily service reports, "Organ Recitals," "Book Chat" and the "Magazine Rack."

* * * *

WOI's success in fulfilling its mission to serve farmers of Iowa put the station on solid footing when it began to develop programs for other groups in the state. Farm women found that the Home Economics division at Iowa State had the kind of information and entertainment they were looking for. The Extension Service assisted Home Economics in getting the material to an audience of women who came to depend on this daily half hour produced especially for them.

Other groups were also eventually addressed by WOI with the cooperation of WOI's sister station, WSUI in Iowa City.

Appealing to specialized audiences was a cornerstone of WOI's programming policy but this practice resulted in a fragmented program schedule and meant that now large block of listeners was tuning into WOI at one time. Although WOI did not attempt to compete directly with commercial radio stations in the "numbers game," it did feel an obligation to make as many people in the state as possible aware of its services. To do this WOI gradually integrated entertainment -- particularly music -- into its schedule.

Footnotes

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- ²Erik Barnouw, The Golden Web: A History of Broadcasting in the United States, Vol. II, 1933-1953 (New York: Oxford University Press, 1968), p. 94
- ³Alberta Curtis, Listeners Appraise a College Station WOI, Iowa State College, Ames, Iowa (Washington, D.C.: Federal Radio Committee, 1940), p. 32.
- ⁴Rouse, "Daytime Radio Programming," p. 317.
- ⁵Faber, "Report on Radio Broadcasting Station," January, 1926.
- ⁶W. I. Griffith, "1933 Annual Report," WOI History Files, Radio Station WOI, Ames, Iowa, pp. 7-8.
- ⁷Curtis, Listeners Appraise a College Station, pp. 32-33.
- ⁸Curtis, Listeners Appraise a College Station, p. 41.
- ⁹Bess Ferguson, "The Woman Inside Martha Duncan," Alumnus Magazine, Eleanor Wilkins Collection, Special Collections, Library, Iowa State University, Ames, April, 1957, p. 4.
- ¹⁰Edith Sunderlin, Interview, Ames, Iowa, February 3, 1981.
- ¹¹Curtis, Listeners Appraise a College Station, p. 69
- ¹²Griffith, "1937 Annual Report," p. 41.
- ¹³Curtis, Listeners Appraise a College Station, p. 51.
- ¹⁴Curtis, Listeners Appraise a College Station, p. 52.
- ¹⁵WOI, "640 on Your Dial -- The Voice of Iowa State," WOI Program Guide, WOI History Files, Radio Station WOI, Ames, Iowa, December, 1940, January, February, 1941.
- ¹⁶Marie Rachut, "History of the State University of Iowa: The Radio Station WSUI" (Master's thesis, University of Iowa, 1946), p. 65.
- ¹⁷Edith Sunderlin, Interview, Aes, Iowa, February 3, 1981.

CHAPTER VII.
REACHING OUT FOR LISTENERS -- ENTERTAINMENT PROGRAMMING

Educational radio all too often met the problem of commercial competition by ignoring it. Many administrators of educational stations thought their role was to "educate" people whether they liked it or not ... and most people neither liked it nor listened to it. Radio was, after all, an excellent medium for entertainment, giving people access to hours of comedy, fantasy and welcome relief from their day-to-day lives. Whether or not radio could have become a widespread medium of education continues to be a topic of debate among educators and educational broadcasters.

Some of the more progressive educational stations developed their own entertainment programs and then aggressively reached out for listeners. By offering an alternative to commercial radio entertainment, they were able to capture a larger share of the listening market. But WOI, like most educational stations, never really drew significant numbers of persons who stayed with the station for hours at a time. The dilemma was almost as old as the station's existence: how to compete against commercial networks and still provide alternative programming. People like Andy Woolfries recognized the problem, but felt WOI could and should be more competitive and aggressive. In 1935 he compared the situation in broadcasting to a carnival ... with an array of tents each seeking to attract customers. The commercial stations' tents, he said, were large, colorful and packed with people. In contrast, the educational stations' tents were "poorly situated,

small, dingy and pathetically empty."¹ He recommended that educational stations add some bright lights and excitement to create curiosity and draw people to their tents. Once inside, he said, the people could be held with a carefully planned mix of talk and music programs.

WOI Entertains

WOI did not at first aggressively pursue a policy aimed at broadening its general audience. Entertainment was added initially to attract and hold the station's primary audience -- farmers and Iowa State alumni -- giving the station a "distinctive Iowa State College atmosphere."² WOI's first attempt to entertain its listeners was to broadcast the Campanile chimes live from the central campus of Iowa State. In summer 1922, a cable was run through the steam tunnels to the Campanile and two rugged microphones were installed above the bells. Thereafter, a chimes concert was presented daily at 12:10 p.m. and again on Sunday mornings. One listener wrote to compliment WOI on its excellent transmitting capability, claiming he could even hear the pigeons cooing in the bell tower between selections.³

Other early entertainment efforts were closely tied to agriculture. For example, WOI pioneered in producing county Farm Bureau programs. County agents were encouraged to produce entertainment programs that promoted Extension activities in their counties. Agents brought groups of youths and adults into the WOI studio to present live music, plays, skits and talks as part of this promotional effort. Rural listeners enjoyed "comparing their county's programs with those of neighboring counties."⁴

As early as 1925, Fannie Buchanan, Iowa State Extension Service's first music specialist, travelled around the state to organize rural choral groups, many of which eventually performed over WOI radio. The publicity and stimulus given these groups by radio helped bring about a unity of county choral organizations that otherwise would not have been achieved.⁵

Sports Broadcasting

Sports broadcasting was a tremendous audience booster for WOI and a handy publicity vehicle for Iowa State. KDKA's ring-side coverage of the Jack Dempsey-George Carpentier heavyweight match on April 11, 1921, showed the nation's radio stations that listeners were eager to hear more of the same.⁶ This national success persuaded WOI also to give it a try. In the fall of 1922 Woolfries crawled some 1,700 feet through the steam tunnels under the campus to connect the radio station and Clyde Williams field with telephone cable. The first play-by-play football broadcast saw the Cyclones lose, 24-0, to the Coe College Kohawks.

This loss did not diminish the spirits of listeners who wrote to WOI requesting more football and other sports coverage. Sports broadcasting on WOI proved to be a particularly effective spirit booster among Iowa State alumni, bringing the campus and school life back into their homes. Woolfries, who covered a majority of the sports contests for the next 20 years, was at least partially responsible for the success of these broadcasts. His portrayals of the games were so exciting that listeners wrote of their "pacing the

room, so terrific was the strain of competition," or of "feeling we are there and seeing the game ourselves."

Within a year Woolfries was covering basketball, wrestling, indoor track meets, boxing and even swimming events. The early WOI broadcast schedules promoted these events with photos of the various College sports teams. And, by the winter of 1926, sports coaches were giving radio lectures on the theory and practice of basketball to help listeners better understand the game. Compared to the elaborate pre-game preparation and promotion by radio and television networks today, the first sports events covered by WOI were far from polished. Woolfries' preparation consisted of studying the game program for about half an hour before going on the air; the rest was ad lib.⁷

Until 1938 only home football games were regularly broadcast. Occasionally private donations covered travel expenses for Woolfries, but this led to sporadic coverage of "away" games. A quasi-commercial solution temporarily solved the problem. Although WOI did not accept commercial advertising, it felt at liberty to support and promote organizations funded by the State Legislature. So, when the Iowa Coal Commission in 1938 and the Iowa Dairy Industry Commission in 1939 offered to finance away-game expenses for WOI, this was an acceptable arrangement for the College station. The wire costs and other necessary expenses were paid by the commissions and Woolfries "tastefully released certain factual material that had previously been approved." For these announcements, the Iowa Dairy Industry

Commission paid \$927 for four off-campus games in 1939.⁸ This "sponsorship" continued into the 1940s when the College assumed the expense.

Another short encounter with "commercial" broadcasting came in 1931, this time initiated by WOI. Woolfries thought a great audience building opportunity existed in covering the Annual Iowa Boys' High School Basketball Tournament, especially since no other radio station was doing so at the time. WOI did not have the money to pay the expense of telephone lines between Ames and Des Moines, so Woolfries approached the Des Moines Register and Tribune with a proposition to "mention the paper eight times during each game if the paper would pay the line charges." The paper agreed and WOI "went commercial" for a few hours a day during the tournament that year.⁹ Other years because of the popularity of this first broadcast, the wire expenses were paid by the Iowa State High School Athletic Association.

Emphasis on sports coverage changed over the years as WOI expanded into other types of programming. For instance, regular sportscasts were added to the program schedule in 1940. A sports announcer was hired and "Sports Review" debuted as a daily roundup of national, state and local sports news. Interviews with Iowa State coaches and players were featured weekly on this program.

While WOI continued to serve its rural and alumni audiences, by 1926 it had begun to look at its daily schedule to see what might be done to attract those who were becoming disillusioned with entertainment on commercial radio. To attract this audience, WOI

deliberately began to schedule a mixture of entertainment and educational programs to avoid "too-similar programs, one after the other." It also offered more music between programs for these listeners.¹⁰

Music Programs

Live musical entertainment was a mainstay at WOI, lasting throughout the 1930s as it did on most radio stations. The heavily draped studio in the Engineering Annex was the performing stage not only for the Iowa State orchestra and choruses, but also for those from Drake University, Simpson College and other musical groups from schools throughout the state.

While live performances continued, recorded music programs increased as broadcasting hours expanded and better quality discs became available. WOI's best known and oldest recorded music program, the "Music Shop," was initiated in 1925 to fill the time between early morning market broadcasts. A haphazard selection of records was played and despite WOI's small record library, listeners responded by requesting dedications for birthdays and anniversaries. This was done, and within five months over 1,000 requests per day were arriving and the program "degenerated into a conglomeration of mountain music and marches."¹¹

Dissatisfied with the development of the program, in 1927 Woolfries decided to experiment with the "Music Shop." Dedications were no longer accepted and more care was taken in the selection of records. The "Music Shop" became a program of serious music with short symphonic pieces, chamber music, choral and sacred music and light opera along

with a few old favorites. Applause mail came in from farmers and city dwellers alike who enjoyed this different early morning sound.¹² Adding some "human interest" information about the composers was Woolfries' way of introducing his audience to music they may have heard before but knew nothing about.

Woolfries believed this component of the program entitled it to the "educational" classification, but to many listeners this "personalized" the program and made it all the more entertaining. As one listener expressed it, "It doesn't teach...."¹³ To further promote the program, copies of biographical sketches of composers were available on request.

With the success of the "Music Shop," WOI felt it could, to a certain extent, claim credit for generally "encouraging and extending appreciation of good music to Iowans." In fact, Walter Damrosch, leader of the New York Symphony Orchestra, following his first series of concerts and lectures on music appreciation in 1938, commented in a report that he had received more letters and telegrams of appreciation from Iowa than from any other state.¹⁴ By 1938 the "Music Shop" was so well established that listener surveys by Iowa commercial stations showed it was competing favorably with their own early morning "popular music" programs. One leading Iowa station once posted a reward of \$50 for a suggestion from its employees for a program that would compete successfully with WOI's "Music Shop."¹⁵ A library, now over 4,000 records offered a wide variety of selections for this and other music programs. The "Music Shop" remains today

a favorite among music lovers and continues essentially unchanged -- in its sixth decade of mixing classical music with the market reports.

Another kind of music played an important part in WOI's programming in the 1930s and 1940s. Religious and sacred songs, along with Psalm readings, were begun in 1933 as a direct response to criticisms by Aimee Semple McPherson, a charismatic religious crusader of the day. While crusading in Iowa in 1933, McPherson lashed out at the state's colleges, calling them "dens of iniquity." Woolfries, determined to show her that Iowa State at least was not leading its students "down the path to sin," put together a daily quarter-hour program of sacred music, psalm readings and a five-minute address by a faculty member or a local clergyman. The program became especially popular among women and rural listeners who regularly wrote to tell the station how much they looked forward to this broadcast. As a result, the program remained on the air for several decades, far outlasting the effect of Aimee Semple McPherson's "divinely inspired" warnings.¹⁶

By 1938, recorded and live music including classical, jazz, orchestra and organ selections accounted for over 50 percent of the total programming on WOI. This was more than twice the amount offered in 1927, when less than 25 percent of the broadcast schedule was devoted to musical entertainment. This increase reflected a change in WOI's philosophy by the late 1930s, which sought to "minimize the danger of losing the general audience" by offering a wide range

of strategically placed music programs.¹⁷ By this time WOI was determined to build a varied audience of music lovers ... hoping to lure them into its "tent" with the different sounds emanating from within.

Book Programs

Another important new sound emanating from the WOI "tent" in the 1920s was the sound of words -- the written word in the form of books. Although book programs might logically seem to fit under the rubric of education, a majority of WOI's book programs were designed to entertain as much as to inform listeners.

There was widespread interest by adult educators, librarians and educational broadcasters about the relationship between reading and radio listening. Many hoped to use radio to stimulate reading, but others feared radio would be an enemy of reading. However, WOI believed that books and radio were ideally suited for each other ... that radio could serve a useful purpose in stimulating reading interest.

WOI's first book program was begun in 1925. Every day in the midst of the morning "Music Shop" program, an Iowa State librarian briefly discussed new additions to the library's book collection. Its purpose was to "acquaint listeners with entertaining and worthwhile books and to awaken in them a desire to read for themselves."¹⁸ But the response to the book reviews, measured by letters received from listeners, was disappointing. Perhaps the nay-sayers were right, radio and reading did not mix. But, Woolfries was not ready to admit

defeat. He recalled a newsreel in which factory workers were read to while working on an assembly line and decided to try this in radio. Selecting the novel Cherry Square by Grace S. Richmond, in February, 1927, Woolfries read for one-half hour every day at 9:00 a.m. The response, especially from housewives, rural women and the elderly convinced Woolfries he had struck on something that might attract a sizable audience. In fact, the daily book-reading program quickly became the "alternative" soap opera for women who either found them too improbable and repetitious or disliked the constant interruptions for commercials.

Woolfries was pleased with the response but felt someone specially hired for this task could spend more time preparing the material to make the characters come to life. That someone was Ruth Galvin Thornburg who, over the next nine years, read more than 140 books over the air. She read only novels but her selections encompassed a wide range of interests, varying from Agatha Christie's mysteries to Edna Ferber's classics. Replacing Thornburg in 1937 was Betty Wells. She continued Thornburg's tradition of spending several hours daily developing voices for the novels' characters and practice-reading the material before going on the air. By 1940 a total of 222 books had been read over the air -- all recent fiction, the type of book WOI believed most listeners preferred.

Researcher Alberta Curtis found in 1938 that the book-reading audience appreciated the continuity of the program and that it filled a need among those who enjoyed reading but lacked the time.¹⁹

Publishers' fears of decreased sales caused some difficulty for the Iowa State Library staff when they requested permission to read certain books over the air, but Curtis' research showed that librarians noticed a marked increase in the demand for books read over WOI. An earlier informal survey of book stores around the state revealed a similar response -- the titles were being brought to the attention of the public and sales increased.

Like "The Music Shop," the book-reading program (today called the "Book Club")²⁰ continues into its sixth decade. Nonfiction, biographies and travel accounts have been added to the list -- better reflecting the interests of those who regularly listen to the "Book Club" today, but the program continues essentially unchanged from 1927. It continues to attract people who consider the program a "break from the rest of life," according to current book reader, Douglas Brown.²¹ By October, 1978, 722 books had been read over the air.²² A woman from Waverly, Iowa, Anna Miller, was perhaps the "Book Club's" longest and most loyal listener. Thanks to her, Brown has a record of every book that was read over the air through 1978. Since the first book-reading session in 1927, she faithfully recorded the titles, authors and reading dates of these books. This labor of love is Brown's only complete record of the "Book Club's" accomplishments. Unfortunately, since Miller's death in 1978, no one has picked up where she left off.

Several other book programs were broadcast over WOI during the 1920s and 1930s. In fact, by 1937 seven book programs were scheduled

every week over the station. In addition to novel reading, Wells also reviewed books, read short stories from contemporary and classic works, discussed outstanding books of travel once a week on "Far Lands," and gave a summary of miscellaneous articles on current events on the "Weekly Magazine Rack."

Two other 15-minute book review programs were presented by the Iowa State Library staff. One was "Public Affairs," in which non-fiction reference-type books were reviewed. The other was "Book Chat," covering a wide variety of informative reviews on recent fiction and nonfiction. The library also cooperated with WOI by securing permission to read books over the air (a time-consuming process), preparing reviews and scheduling time for four staff members to share the reviewing duties.

All of these programs were promoted both on the air and with posters that were sent to libraries in Iowa and neighboring states which requested them. Librarians in small Iowa towns were particularly interested in the book reviews which helped them to select purchases for their libraries.²³

Carrying its promotion of book reading one step further, WOI started a unique "Radio Book Club" in 1930. This was in response to requests from listeners who wanted to borrow books from the Iowa State Library having heard them reviewed or read over WOI. The library could not fulfill these requests since its holdings were purchased with funds appropriated to obtain books for the students and faculty of Iowa State. WOI believed these listener requests

stemmed from the lack of well-furnished libraries in the smaller towns of Iowa and were also a by-product of poor rural roads limiting people's access to libraries and books. So the station decided to go into the book-lending business itself. Griffith met with the president of Iowa State, the Board of Education and the Iowa Library Commission and convinced them of the need for this service. The plan entailed a \$3 membership fee entitling a person to receive 20 coupons. Each coupon allowed the holder to borrow one book for four weeks. The books would be sent and returned through the mail and membership fees would be used to purchase books exclusively for the Club's use. President Hughes recommended that funds be allocated to cover postage and handling expenses on a one-year trial basis. Also, as a nonprofit organization, WOI was entitled to a reduced postage rate of 4 cents per book.

An announcement about this new venture was made over WOI informing listeners that unless 100 people submitted the \$3 membership fee, the Club could not be initiated. Although no book list had been announced and only radio was used to promote the plan, within a few days WOI received by telegraph, mail and special delivery 252 checks.²⁴ Woolfries took this money, purchased as many books as the money would buy and mailed out the first requests.

To meet this tremendous response, a committee was formed to compile an appropriate book list. Dr. Charles Brown, Iowa State Library director, Dr. F. Spaulding of the Des Moines Public Library and a third member from the Iowa Library Commission selected the

titles, and Iowa State Library staff members prepared brief summaries of each book from which members made their selections. Fiction, biographies, description and travel, literature, psychology, philosophy, religion and books on the natural sciences were eventually represented in the collection.

Within a year, 77 of Iowa's 99 counties were represented in the Radio Book Club. When WOI analyzed the Club in 1931, it found the books were reaching the intended audience -- approximately half the members were rural Iowans. To the station's surprise, the results also showed more than one quarter of the participants lived in towns and cities already served by libraries.²⁵ Alberta Curtis found in her research in 1938 that urban participants were attracted to the "Radio Book Club" because of the convenience of having books delivered to their homes. By 1938, there were more than 1,400 titles listed in the catalog. Over the years the Club had circulated more than 40,000 books to its active members. Enrollment exceeded 2,200 by this time, although the figure included inactive members who were counted as long as they held coupons.²⁶

The popularity of some of WOI's book programs attracted people from around the country who were interested in assessing the stimulus that such programs had on book reading. Marion Humble studied WOI's book programs and called them "outstanding" in comparison with similar efforts on other stations.²⁷ An extensive analysis of WOI's book programs was part of the previously mentioned Princeton Radio Project. Researcher Alberta Curtis' analyses were based on in-depth, face-to-face

interviews with listeners in Marshalltown, Iowa, mailed questionnaires and interviews with librarians throughout the state. Some of the findings were that WOI's book programs were listened to by people of higher economic status, who were older and more interested in educational and cultural programs than the general Iowa radio audience of Iowa.²⁸ Curtis concluded the enjoyment and service these programs offered to their listeners outweighed their limited appeal and they should be continued.

In her research, Curtis personally interviewed 22 Book Club members in the state. She came away with a general impression that by 1938, a majority of the borrowers were the local "intelligensia." This observation came from answers she received when asked what types of books members would like to see added to the selection. Some suggestions were: more books on science, biographies of people who "shaped history" and more realistic literature. No one requested books from the best-sellers list.²⁹

Curtis recommended that if the resources and facilities could be expanded, the Book Club held great promise as an "invaluable aid to the Traveling Library in Iowa" and to promotion of book reading in general.³⁰ Although this did not occur, the Radio Book Club continued to lend books until the early 1950s, by which time very few people were using the service because of easier access to books through other sources.³¹

Thus ended a unique venture in expanding to the limit the interpretation of "broadcasting in the public interest." WOI and

Woolfries in particular saw a need and devised a means to fulfill it in a way that both served the people of Iowa and helped attract more listeners to the station.

Other Entertainment Programming

WOI made a special effort to keep its entertainment programs personal. Even recorded music programs like "Music Shop" were given the personal touch with Woolfries' brief historical sketches of composers. He also brought in Iowa talent whenever possible to maintain the station's identity with the school and the state. One example: a man known in central Iowa for his Swedish impersonations was recruited by Woolfries to perform for WOI listeners. He was Benjamin S. Willis, professor of Electrical Engineering at Iowa State, who brought his skits to WOI's studio and started performing before the microphone in 1928. His most popular Swedish character was "Ole Bjorkness," the editor and publisher of the "Prairie Valley Intelligencer." During the 1930s "Ole" gave humorous five-minute "newscasts" following Woolfries' regular news programs every Wednesday at 4 p.m. Current news events and local gossip from this fictitious Iowa town were recounted in a manner not unlike that heard today from Lake Wobegon on National Public Radio's "Prairie Home Companion." Willis was assisted by several other regular cast members in these and longer skits performed between 1932 and 1939. By then Willis' increased teaching responsibilities forced him to leave the air.³²

Although WOI did not attempt to duplicate the type of entertainment found on local commercial stations, it was aware that

entertainment was a great audience pleaser. By 1930, comedy was king of the airwaves, successfully transplanted from vaudeville. A survey in 1935 showed that 65 percent of radio's listeners preferred comedies over any other type of program.³³ Benjamin Willis may not have been a Jack Benny or a Fred Allen, but judging from the favorable response to his program, people thoroughly enjoyed his wit and humor.

Publicity

One problem that dogged educational radio throughout its development and inhibited its growth was a reluctance to promote itself in the marketplace. Anything that hinted of "commercialism" was vigorously avoided by most of these stations. As a result, potential listeners were lost, simply because they were not aware that noncommercial stations even existed in their areas.

In a speech before the fifth annual meeting of the Institute for Education by Radio, Griffith warned the enormous growth of commercial radio precluded the assumption that "fair-sized audiences would just happen for educational broadcasters." He believed educational station managers had a responsibility to vigorously publicize programs that had taken time and effort to produce and were directly or indirectly funded by taxpayers of a state.³⁴

Although budget constraints restricted the amount of publicity WOI could afford, the station nonetheless made the most of what was available. WOI received a fair amount of free publicity through distribution of Extension publications in conjunction with farm and home economics programming. This same "something for nothing" tactic

was used on other programs to keep people reminded of the station. Griffith, Woolfries, Martha Duncan and "Cap" Bentley also promoted WOI whenever they appeared around the state.

WOI published and distributed free of charge a program bulletin during the first few years it was on the air. With the onset of the Depression, however, budget cutbacks ended this service. But, with Curtis' 1938 research findings in hand, WOI had a good argument to resume publicity efforts. In 1939 the station requested and received \$600 specifically budgeted for publicity purposes. Most of this money was used to publish a quarterly bulletin. A permanent mailing list was drawn up which included individuals requesting the bulletin, superintendents of schools, county agriculture agents, home demonstration agents and the faculty and employees of Iowa State College. By December, 1940, more than 20,000 bulletins were distributed. In addition, advertising space was purchased in several large Iowa newspapers as well as Radio Guide magazine to promote its programs.³⁵

* * * *

With its music and book programs, WOI reached out for a larger general audience and in time these listeners became WOI's strongest supporters. Its audience was not large in comparison to the number of people drawn to commercial stations, but WOI's music programs in particular, appealed to a broader audience than its special-interest educational broadcasts did. Music also lent continuity to WOI's otherwise fragmented schedule.

By directing its messages to particular audiences, WOI managed to hold them until television invaded the listening market in the 1950s. WOI had never attempted to march to the tune of commercial radio; instead it orchestrated a format that reflected its perceived role as purveyor of news, information and alternative entertainment to its audience.

Footnotes

¹Andrew Woolfries, Paper presented at the Seventh Annual Institute for Education by Radio, Columbus, Ohio, WOI History Files, Radio Station WOI, Ames, Iowa, May 4-6, 1936.

²W. I. Griffith, "1926 Annual Report," WOI History Files, Radio Station WOI, Ames, Iowa, p. 5.

³Griffith, "1925-26 Annual Report," p. 51.

⁴Griffith, "1925-26 Annual Report," p. 55.

⁵Max Exner, Interview, Ames, Iowa, January 29, 1981.

⁶Gleason L. Archer, History of Radio to 1926 (New York: American Historical Society, Inc., 1938), p. 212.

⁷Andrew Woolfries, Interview, Osage, Iowa, October, 1979.

⁸Griffith, "1939 Annual Report," p. 50.

⁹Woolfries, Interview, Osage, Iowa, October, 1979.

¹⁰Alberta Curtis, Listeners Appraise a College Station WOI, Iowa State College, Ames, Iowa (Washington, D.C.: Federal Radio Education Committee, 1940), p. 51.

¹¹Woolfries, IEBR presentation, p. 5.

¹²Griffith, "1929-30 Annual Report," p. 4.

¹³Curtis, Listeners Appraise a College Station, p. 27.

¹⁴W. I. Griffith, "Problems of the College and University Broadcasters," Education on the Air: First Yearbook of the Institute for Education by Radio, ed. Josephine MacLatchy (Columbus, Ohio: Ohio State University, 1930), p. 246.

¹⁵Curtis, Listeners Appraise a College Station, p. 55.

¹⁶Woolfries, Interview, Osage, Iowa, October, 1979.

¹⁷Curtis, Listeners Appraise a College Station, p. 51.

¹⁸Curtis, Listeners Appraise a College Station, p. 16.

¹⁹Curtis, Listeners Appraise a College Station, p. 24.

²⁰This name was used for both the book-reading program and the book-lending service after 1943.

- 21 Denise Carringer, "Frustrated Actor's Dream Comes True on Ames Radio," Des Moines (Iowa) Tribune, March 14, 1977.
- 22 Douglas Brown, Interview, Ames, Iowa, April 17, 1981.
- 23 Griffith, "1937 Annual Report,"
- 24 Griffith, "Problems of College Broadcasters," p. 242.
- 25 Griffith, "1930 Annual Report."
- 26 Curtis, Listeners Appraise a College Station, p. 25.
- 27 Marion Humble, Rural America Reads: A Study of Rural Library Service (New York: American Association for Adult Education, 1938), p. 31.
- 28 Curtis, Listeners Appraise a College Station, p. 69.
- 29 Curtis, Listeners Appraise a College Station, p. 25.
- 30 Curtis, Listeners Appraise a College Station, p. 26.
- 31 Robert Mulhall, Interview, Ames, Iowa, September, 1980.
- 32 Alice Willis, Telephone interview, Des Moines, Iowa, December 7, 1980.
- 33 Russel Nye, The Unembarrassed Muse: The Popular Arts in America (New York: The Dial Press, 1978), p. 394.
- 34 W. I. Griffith, "Educational Stations During the Last Five Years," in the Fifth Yearbook of the Institute for Education by Radio, ed. Josephine MacLatchy (Columbus, Ohio: Ohio State University, 1934), p. 119.
- 35 Curtis, Listeners Appraise a College Station, p. 68.

CHAPTER VIII. CONCLUSIONS

WOI faced the same problems all radio stations wrestled with during the first two decades of broadcasting. At the same time, its status as an educational station saddled it with additional challenges and problems commercial stations did not have to address. WOI's evolution exemplifies the achievements and difficulties confronted by educational stations affiliated with land grant institutions. In this sense, it could be called a microcosm of Midwestern educational radio. But, like all radio stations it evolved in a unique environment. For WOI, this environment included a group of people with the foresight and talent to use the resources surrounding them on the Iowa State campus for the benefit of rural Iowans. Treating its audience as receptive, aware persons, not potential customers, WOI was successful in acknowledging the needs of Iowans, thus fulfilling its mandate to "serve the public interest."

In the 1920s, radio was an exciting new medium and WOI participated in this excitement almost from the beginning. Getting on the air was relatively easy, at first; WOI did it with a second-hand ship's transmitter, spare parts and the enthusiasm of a few people. Staying on the air was another matter. As one participant put it, it was like trying "to learn to ride a bike while inventing it."¹ The lack of appropriate electronic equipment and of precedents to guide radio's development restricted the industry for years. At the beginning there was little concern about the finite limits of the medium, the expense of maintaining a station or, indeed, what would be broadcast.

While wrestling with these early problems, WOI benefitted significantly from its association with a land grant institution. A well-organized Extension system gave the station a head start in establishing contact with a receptive and appreciative audience ... the Iowa farmer. The role WOI eventually played in getting market information to the farmer is the most important contribution the College station made in response to its "public service" mandate. Before this service was made available, farmers did not have immediate access to important market information that could help them make decisions concerning their farming operations. Livestock and grain dealers were also handicapped by this lack of information.

Despite their head start, WOI and other Midwest land grant stations lost this advantage to commercial stations because of a myriad of problems ... some their own doing, others due to the ravages of a laissez-faire philosophy that quickly turned radio broadcasting into a big business. Commercial stations, in attracting mass audiences with entertainment programming, forced educational stations to face the fact that people wanted more than market reports and lectures over the radio. WOI and other Midwest educational stations were also faced with a steadily shrinking rural audience. For instance, in 1920 Iowa was over 70 percent rural but by 1940 that majority had slipped to 55 percent and the trend was to continue.

To meet this challenge, WOI gradually reached out for new listeners by offering them its own type of entertainment such as classical music and the book reading program. By doing so, WOI

attracted people who either rejected commercial entertainment or else sought something more specifically geared to their agricultural or cultural interests. The station also retained its "personal" image, something many commercial stations lost with the introduction of network programming. Many people tuned to WOI just to hear "Andy" or "Martha" ... year after year. This personal approach helped WOI introduce programming that otherwise might not have been accepted by its listening audience. Andy's "Music Shop" was particularly successful because of his personal contributions to the program.

By 1940, radio had developed into the medium most people depended upon for information and entertainment. During World War II radio broke new ground by showing the world it could also be depended upon to keep them well-informed with in-depth news and public affairs broadcasting. But, after the war, commercial radio once again returned to its pre-war programming format aimed at drawing the largest number of people with the least amount of effort. At WOI, too, the vitality and excitement of the earlier days were gone, not to be renewed until the advent of television broadcasting again sparked broadcasters' imaginations. But before television captured the limelight, frequency modulation (FM) broadcasting was introduced, greatly expanding radio broadcasting's capabilities. And WOI was ready -- in fact, in 1935 WOI Director W. I. Griffith predicted that FM and even television would eventually join AM on the airwaves and recommended the station be ready to exploit these advancements. WOI received one of the specially allocated noncommercial FM licenses

and began operating on 90.1 megahertz in 1949. Nighttime broadcasting returned to WOI, but more importantly, FM's freedom from static and its high-fidelity sound reproduction gave the station an opportunity to deliver high-quality stereo music programs and a variety of special features.

Not forgetting its original mission, WOI-AM expanded its market services during the 1940s, at a time when commercial stations were finding it increasingly expensive to provide the farmer with such information. With continued support from Extension, the College and agricultural experts such as WOI's R. "Cap" Bentley, the station's reputation for reliability and in-depth market reports grew during the 1940s and 1950s. Bentley's reports consistently topped all other WOI programming in listenership and captured third place in 1958 among 104 stations listed to in Iowa for market reports.²

With formation of the Corporation for Public Broadcasting (CPB) in 1968, the federal government finally acknowledged the need for special consideration of noncommercial broadcasters who offered educational, cultural and minority programming not financially feasible on commercial stations. The government's laissez-faire approach gave way to federal funding and assistance in constructing the necessary infrastructure to foster improved noncommercial radio and television programming. National Public Radio (NPR) was inaugurated as part of this system, offering national programming, interconnection services and representation at the federal level for public radio stations. Public affairs programming blossomed as a result of the new public

network. Its most successful production is the 90-minute news program "All Things Considered." At the local level, NPR funding enables WOI to produce a public affairs "news magazine" called "This Morning." Interconnection capability brings entertainment programs to WOI from other NPR affiliates, such as Minnesota Public Radio's "Prairie Home Companion." In January, 1980, WOI achieved "international status" by hooking up with the Western Union WESTAR I satellite communication system allowing it to send and receive programming from around the world wherever similar hookups exist. Ironically, just as public radio is beginning to capture the attention of more people, federal funding may be drastically slashed as part of President Reagan's 1981 budget cutting proposals.

Educational radio has, in a sense, come full circle. Strong parallels exist between today's problems and those faced in the 1920s and 1930s. WOI was able to survive a steady barrage of attacks on its station during this developmental period because it received College and Extension support to hold fast to its policy of public service broadcasting directed toward an audience which appreciated its efforts -- the Iowa farmer. However, this commitment relegated the station to the "little league" when it was measured against local commercial stations' audiences. Even though funding and facilities were in short supply at WOI because of its refusal to accept advertising, this policy freed them from day-to-day financial pressures and sponsors' demands. It enabled them to experiment with programming

and maintain a flexible schedule that allowed WOI to tailor its programming to suit, very closely, regional tastes and interests.

Footnotes

¹Robert J. Blakely, To Serve the Public Interest (Syracuse, New York: Syracuse University Press, 1979), p. xi.

²Ronald Bentley, untitled report, Ronald C. Bentley Collection, Box 1, Special Collections, Library, Iowa State University, Ames.

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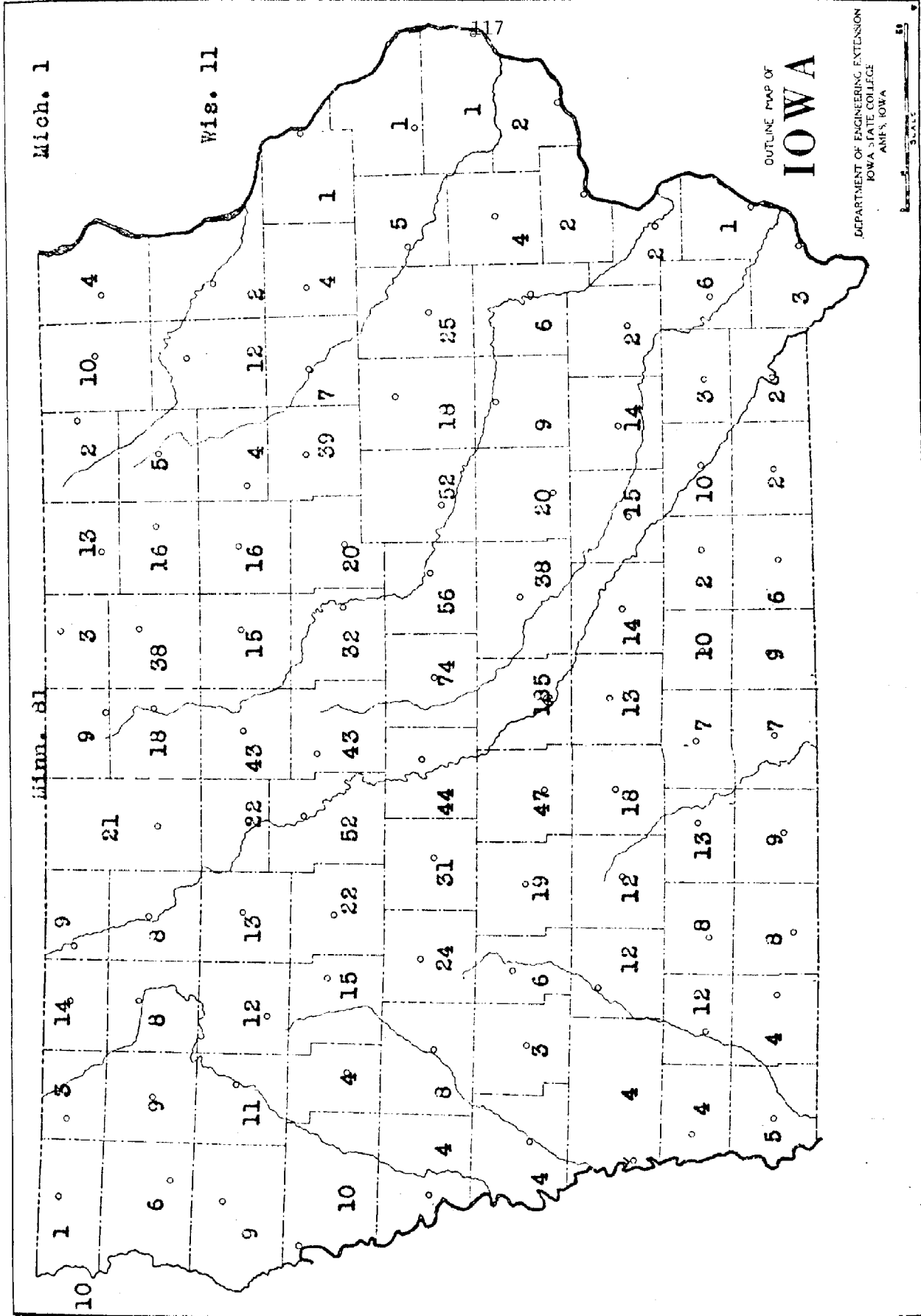
APPENDIX A.
A NOTE ON SOURCES

The bulk of historical information for this research came from primary resource material in the form of annual reports written by W. I. Griffith between 1925 and 1941. Other official documents from the College administrative offices and the Special Collections department at Iowa State University Library added considerable primary source material. Oral interviews with a number of people associated with WOI broadcasting were solicited to contribute their first-hand knowledge of the station's development.

Secondary source material served primarily to set the scene in which WOI developed and to temper the unavoidably biased nature of in-house records.

APPENDIX B.
AUDIENCE MEASUREMENT

WOI followed a vigorous campaign of measuring its audience. The mail count from replies of solicited responses was tabulated and used to determine its effective range and interests of its listeners. Occasional surveys were sent to listeners to determine their specific listening habits or programming needs. In 1938 the "WOI Program Preference" chart was a result of research done at WOI by the Princeton Radio Project. This gave WOI the most scientific tool it had ever had to determine the effectiveness of its programming.



1677 Replies, from 99 Iowa Counties and 7 other states
 X.A.C.-Ames, football game, 11a.m. Nov. 26, 1925
 1521 Replies from Iowa

IOWA STATE COLLEGE OF AGRICULTURE
AND MECHANIC ARTS
EXTENSION SERVICE

URE AND HOME ECONOMICS

118

AMES, IOWA

June 11, 1929

Dear Sir:

We are enclosing a time schedule of the programs of Agriculture and Home Economics now being broadcast by WOI and a questionnaire on conditions of radio reception in your locality.

Our object in sending this material is twofold;

FIRST to make you familiar with the time you may expect to hear the market reports that are received by leased wire directly from the U. S. Department of Agriculture, the U. S. Weather Bureau reports and the programs of information broadcast by members of the college faculty.

SECOND to ask your cooperation in filling out this questionnaire in order that we may know how our programs are heard in your locality, whether or not the material we are now broadcasting is of service to you and what suggestions you may have for improving the service.

You can help us in extending the benefits of the college and U. S. Department of Agriculture to a larger number of people by completing the questionnaire and giving us the benefit of your opinion.

Yours truly,

W. I. Griffith
Director of Radio Station WOI

Approved by,
Signature redacted for privacy

Director of Agricultural Extension.

Individuals Questionnaire on Radio
119

County _____
Township _____

Post Office _____
Date _____

In order that WOI may be of the greatest possible service to agriculture and the homes of Iowa, we will appreciate it very much if you will give your best estimate in reply to the following questions. Underscore word which describes your situation. If you have no receiving set in your home or office please hand to some neighbor who has one.

1. Is daylight reception of WOI programs in your locality usually excellent; satisfactory; medium ; poor; impossible?
2. Is evening reception of WOI programs in your locality usually excellent, satisfactory; medium; poor; impossible?
3. Is your receiving set in your home or office?
4. Kind of receiving set _____ Number of tubes _____
5. In the event of poor reception is the difficulty due to:
 - A. Interference from other stations? (Yes or No) _____
If yes, what station causes interference? _____
 - B. Lack of power? (Yes or No) _____
 - C. _____
6. Number in order of importance to you the following three kinds of program.

<input type="checkbox"/> Market News	<input type="checkbox"/> Educational
a. Livestock	a. Noon discussions
b. Grain	b. Morning (10:00 o'clock)
c. Dairy products & poultry	c. Chapel services
<input type="checkbox"/> Entertainment	
a. Evening programs	c. Boy scout & miscel. programs
b. Athletic events	d. Morning Music Shop programs
7. Is information now being broadcast by other stations that should be broadcast by WOI? Yes, No.
If yes, give call letters and instances _____
8. During what hours is your set usually used in getting WOI programs?

9. Do you know of specific instances in which information received by radio has resulted to the advantage or financial gain of the listeners? Yes, No. (Use the reverse side of paper).
10. How may the WOI service be improved? (Use reverse side of paper).
11. Occupation of signer _____
12. Remarks (Use reverse side of paper).

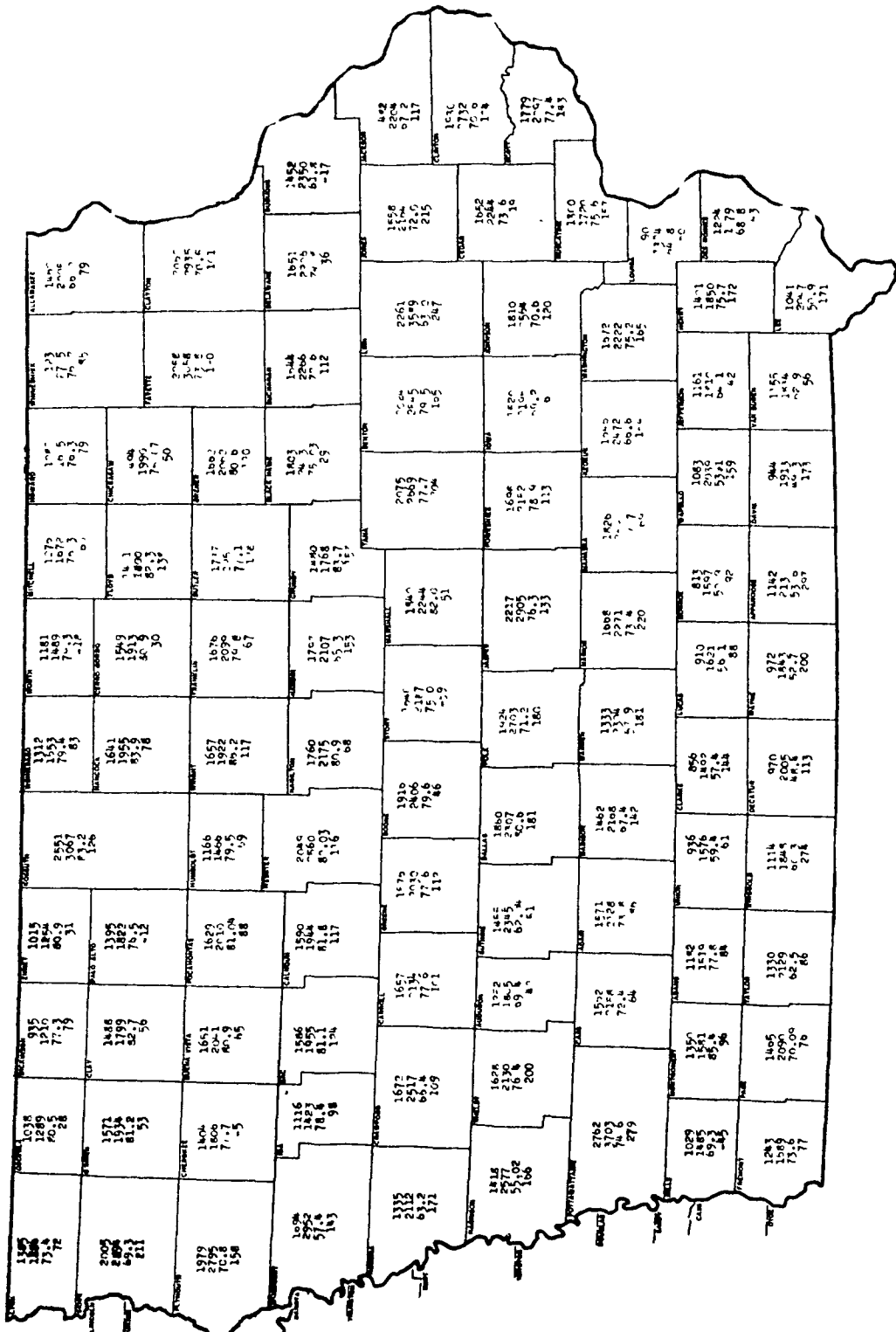
Signature _____

Please return to W. I. Griffith, Care of WOI, Ames, Iowa in enclosed stamped envelop as soon as possible.

Summary for State:

	Jan 1, '39	Increase or decrease of '39 over '38	Jan 1, '38	Jan 1, '37	Jan 1, '36	Jan 1, '35
Total radio sets on farms	150,887	10,806	140,081	128,073	107,320	85,312
Total farms in state (3 acres or more)	201,709	-38	209,737	212,376	213,591	215,167
Percentage of farms having sets	71.95%	5.16%	66.79%	59.83%	50.21%	39.6%
Average of 1 radio set for each	1.32 farms	--	1.49f	1.67f	1.99f	2.52f
Data in each county should be read as follows:						
	Jan 1, '34	Jan 1, '33	Jan 1, '32	Jan 1, '31	Jan 1, '30	Jan 1, '29
	71,467	69,303	97,938	102,315	97,286	86,128
	213,769	212,236	212,246	213,993	208,506	210,310
	33.43%	32.68%	46.14%	47.81%	46.65%	40.95%
	2.99f	3.26f	2.16f	2.09f	2.14f	2.14f
	Jan 1, '28	Jan 1, '27	Jan 1, '26			
	76,032	65,466	43,968			
	210,108	211,637	210,899			
	36.18%	30.93%	20.84%			
	2.76f	3.23f	4.69f			

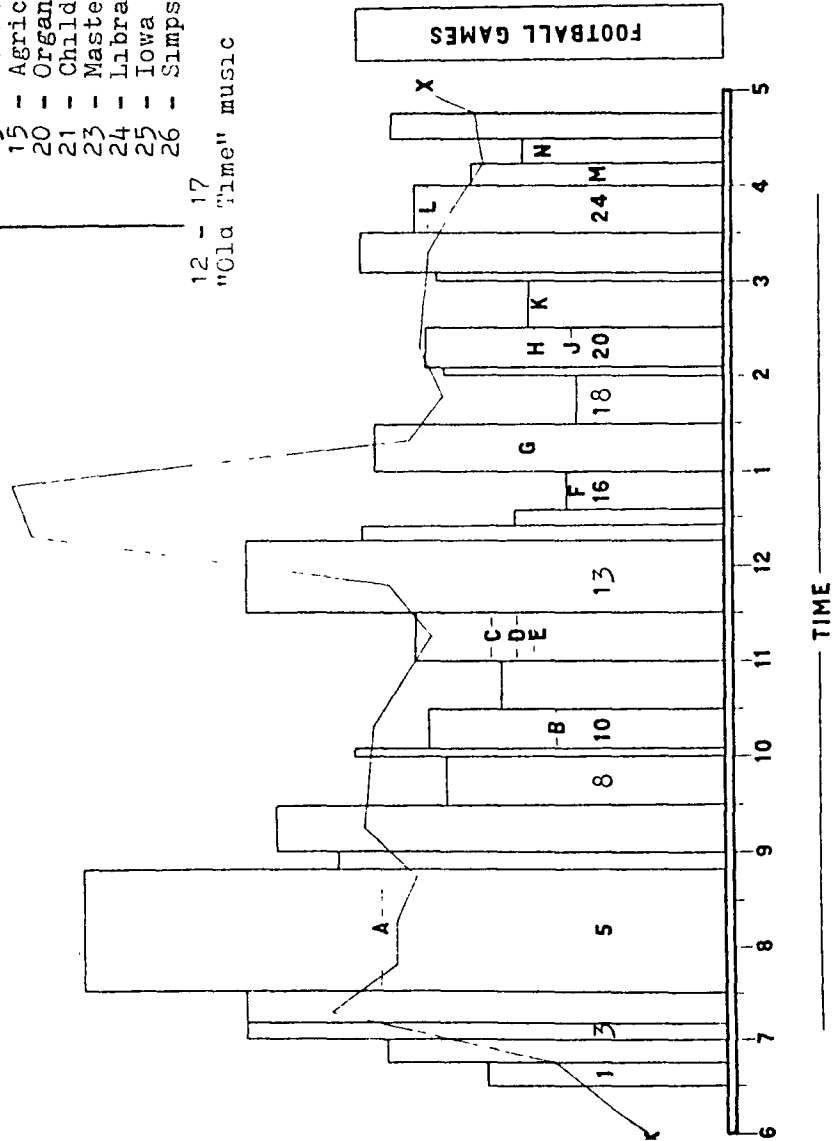
Distribution of radio receiving sets on farms of Iowa for 1938. Data taken from assessors' reports as of record January 1, 1938 and supplied through the courtesy of the Federal-State Crop Reporting Service, Des Moines, Iowa.



Data compiled by Alberta Curtis in 1938

WOI PROGRAM PREFERENCE

- PROGRAM NUMBERS**
- 1 - Morning Parade
 - 2 - 6 - 8 - 11 - 16 - 18 - Service reports
 - 3 - 9 - 14 - 22 - 27 - News
 - 4 - Matins
 - 5 - Music Shop
 - 7 - Reading - Betty Wells
 - 10 - Homemakers' Half Hour - Ness
 - 13 - National Farm and Home Hour (NBC)
 - 15 - Agricultural talk
 - 20 - Organ recital
 - 21 - Child Study Club
 - 23 - Masterworks
 - 24 - Library - Short Story & Far Lands
 - 25 - Iowa State Medical Society
 - 26 - Simpson College & Upper Iowa Univ.
- INSERTS**
- A - Book reviews (M & F)
 - B - P.T.A. Programs (Sat.)
 - C - Book Chat (Th)
 - D - Public Affairs (T)
 - E - Girls 4H Program (1st Sat)
 - F - Extension Hour (Sat)
 - G - Modern Orchestras (T, Th)
 - H - Department of Music (F)
 - J - Modern Vocations (M)
 - K - Federated Womens Clubs (F)
 - L - Magazine Rack (F)
 - M - Academy of Science (Th)
 - N - Department of English (M)
- Line XX - Iowa Listening Habit (Summers' Survey)



APPENDIX C.
AUDIENCE CORRESPONDENCE

A selection of letters has been included to demonstrate the impact radio in general, and WOI in particular, had on the lives of Iowans and others who heard the Ames station. Hundreds of letters came in every week. Sometimes they were solicited as a means of measuring audience interests, size and composition. Frequently requests for Extension materials were accompanied by comments about WOI's programming or about "Andy" or "Martha." This personal correspondence eventually tapered off once radio became a common household appliance, but letters helped to personalize the station for listeners and WOI, in turn, could better envision its audience.

Copy
WOI HISTORY FILE

A. Williams

Petersburg, Alaska.

January 9, 1926.

Radio WOI

Ames, Iowa.

Dear Sirs:

Your program was received here very good, clear and fine volume on the loud speaker. We stayed up half the night with you, listening to the various persons being taken aboard the Wagon. You sure covered a lot of territory with that same old outfit. I wondered how you would have taken us aboard from this place, as we are on an Island. Next time better include a boat in your equipment, we might send you a wire.

With due appreciation.

Yours Truly

Signature redacted for privacy

Radio Broadcasting is a God Send to the people of Alaska.

Grundy Center, Ia.
Jan. 12, 1926.

Radio Station WOI

"By all means do not discontinue your market reports. It is by far the best market report we listen to. Go on with it please! "

(signed) Arthur M. Wood
R.F.D. #1

Brooklyn, Iowa.
Jan. 12, 1926.

Station WOI

"Please continue the market reports. we need them and certainly do appreciate them."

(signed) M. Triplett.

Kanawha, Iowa,
Jan. 11, 1926.

Station WOI

"In regard to your announcement wishing to know if we wanted the hog flash or markets to continue, for my part I appreciate the service. I would say keep the good work up. I consider WOI the best market service that we farmers have."

(signed) F. A. Gorton

Hampton, Iowa.
Jan. 11, 1926.

Station WOI

"We certainly want WOI to be on the air with the market report. It is the only place where we are sure to get them".

(signed) J. M. Rowan.

Lucas, Iowa.
May 26, 1928.

We listen in every morning and noon for the markets from WOI. Also enjoy the music programs too. One of our neighbors phones every day to hear how the hog market is.

(signed) J. H. Primm.

LaPorte City, Ia.

We make use of your market reports every day. Don't know what we would do without them. Consider them and the talks worth a great deal to the farmer. Some interference with a Chicago station at night. If we can help you in anyway would be glad to do so.

(signed) Craft Brothers.

Manchester, Iowa.
May 15, 1928.

We are writing you in regard to your radio programs. We enjoy them immensely. Always listen to your music shop programs and your market and farm talks during the noon hour but in the evening we do not get much satisfaction as there is too much interference from other stations. Heres hoping you will always keep on broadcasting.

(signed) Mr. E. W. Hugh

Greená, Iowa,
May 15, 1928.

Heard you say over the radio you wanted to know how we liked WOI. We like it just fine. We tune in every morning to get your Chicago hog markets. I have a little note book in which I write down the hog markets every day. and they sure help us like everything. Also enjoy your music ever so much.

(signed) Mr. & Mrs. Henry Rover.

Avoca, Iowa,
May 16, 1928.

If a word of appreciation will help WOI in any way we hasten to send one. At 6:30 a.m. we hear the cheery "Good Morning friends", set the clocks and receive the first market news. These market reports are detailed and reliable and well given. We listen to the Music Shop program because that is the kind of ~~XXXX~~ music we enjoy. Not all the "friendly farmers" go into a trance when they hear "Old Zip Coon" or the Irish Washerwoman. We know the information given by the various departments of the school is the result of years of study and experience. It is fine to have some place to turn to

IOWA STATE TEACHERS COLLEGE
Cedar Falls, Iowa.

Department of Education.

October 10, 1934.

Radio Station WOI,
Ames, Iowa.

Dear Friends:

I want to protest here against the proposed restriction of WOI's time on the air. Since I bought my first (and present) radio, only five years ago, the Ames Music Shop Hour has been our favorite family radio program. With the motins bringin a bit of philosophy short enough to be easily taken with morning breakfast, the survey of Iowa editorials, and the various entertaining and household help programs that follow during the day, WOI remains the favorite station - a station that doesn't please you with unwanted and misleading advertising or make radical shifts in the nature of its program every fifteen minutes.

But there's another reason for protest. Radio is a channel of communication and like printing and books in the 15th and 16th centuries has tremendous possibilities for enlightenment as well as entertainment which should be protected in the interests of a better democracy. It may well be that in this country we can find our best solution in commercial financing and operation of much of our radio broadcasting, but there remains now a very real place, and an even greater one in case of further aggravation of political and economic difficulties - for stations whose setup and history guarantee free speech, truthful, rational unbiased.

This state cannot afford to lose a station which has contributed so much and carries even greater promise for the future. Is America going to permit radio like the movies and the great natural resources of the country to become the private property of a few, or shall we take this convenient

Radio Station WOI:

opportunity to apply that phrase of the Preamble to our national constitution, "promote the general welfare", trying really to secure the greatest good for the greatest number? On what basis can we inaugurate and foster a TVA and then with the left hand commit such a deed as is proposed in the torture death of WOI and the exposure of the public to another wave masquerade of interference. The New Deal cannot afford such an inconsistency.

Cordially yours,

Prof. D. P. Phillips.
Mrs. D. P. Phillips
Dorothy Phillips.
D. C. Phillips.

Dr. William J. Mayo
Rochester, Minn.

October 11, 1934.

To the Manager
Radio Station WOI
Iowa State College
Ames, Iowa.

Dear Sir:

It has come to my attention that an effort is being made by certain commercial interests to interfere with the radio wave operated by your station.

Personally I greatly enjoy the splendid material that is presented by this station, but I would call especial attention to the great numbers of sick people who are in hospitals in Rochester and elsewhere, as well as in homes, who are accustomed to turn to WOI, not only for entertainment but for spiritual comfort. It may seem that religious influence is on the wane, but I believe it is rather that methods of expression of religious thought have changed than that there is alteration in faith. At least it is our experience in the hospitals which are under our direction in Rochester that our patients faced with serious illness, perhaps requiring surgical methods of relief, lean for comfort on religious expression.

The programs from Station WOI, beginning in the morning with matins and short sermons by prominent clergymen, followed by the opinions on the topics of the day expressed by editorials in the daily papers of Iowa, and then by good music, without advertising, chosen from the great masters, with explanations regarding the composers and the meaning of the music, have not only inspirational but also great educational value.

I would mention also those listeners who are blind, or confined to bed, or for various other reasons unable to read, who are greatly interested in the readings of Ruth Galvin.

To deprive not only the public, but the sick and the shut-in of these programs which in so many ways are informative and helpful, and to substitute for them the advertising of sometimes good and sometimes indifferent commercial programs, would be a travesty on that which the New Deal is attempting to bring about and foster.

Sincerely yours,

WJM:sh.

W. J. Mayo.

APPENDIX D.
PROGRAMMING

As evidence of its dramatic growth during the time period covered by this thesis, two WOI program bulletins have been included. It grew from a single page in 1925 to a 15-page illustrated brochure in 1941. The brochure was distributed free to over 20,000 people by 1941.

Also included in this appendix is a sample of some of the books that were read over the air between 1930 and 1976. A complete list of every book read over the air is available at WOI radio.

Schedule of Radio Station WOI

Daily Except Sunday and Holidays

9:30 a.m.	Weather forecasts - Daily Chicago hot flash Estimated live stock receipt from Chicago - St. Paul Cassida and Story City
10:30 a.m.	Afternoon Chicago hot flash
12:30 p.m.	Chicago weather forecast - crop summary, market quoti- tion - Late St. Paul hot flash - Butter and egg market from Chicago and New York
12:40 p.m.	Educational talks - Questions and answers, Monday, Veterinary Discussion, Faculty of Vet. Division Tuesday, Animal Husbandry, Prof. H. H. Killee Wednesday, Poultry Husbandry, Prof. H. A. Bittenbender Thursday, Farm Crops, Prof. H. D. Hughes Friday, Agricultural Economics, Dr. C. L. Holmes Saturday, Soils, Prof. W. H. Stevenson
9:30 p.m.	Weather forecasts for Iowa and adjacent states

Regular Schedule, But Not Daily

Sunday,	10:45 a.m.	Chimes
	11:00 a.m.	Chapel Exercise
Monday	7:30 p.m.	Short Course Lectures - See table
	7:50 p.m.	Program
Tuesday,	10:30 a.m.	Home Economics Program - See table.
Thursday,	10:30 a.m.	Home Economics Program - See table
	7:30 p.m.	Short Course Lectures - See table
	7:50 p.m.	Program

Special features will be broadcast as announced on our regular schedule.

Short Course Lectures on Automobile Operation

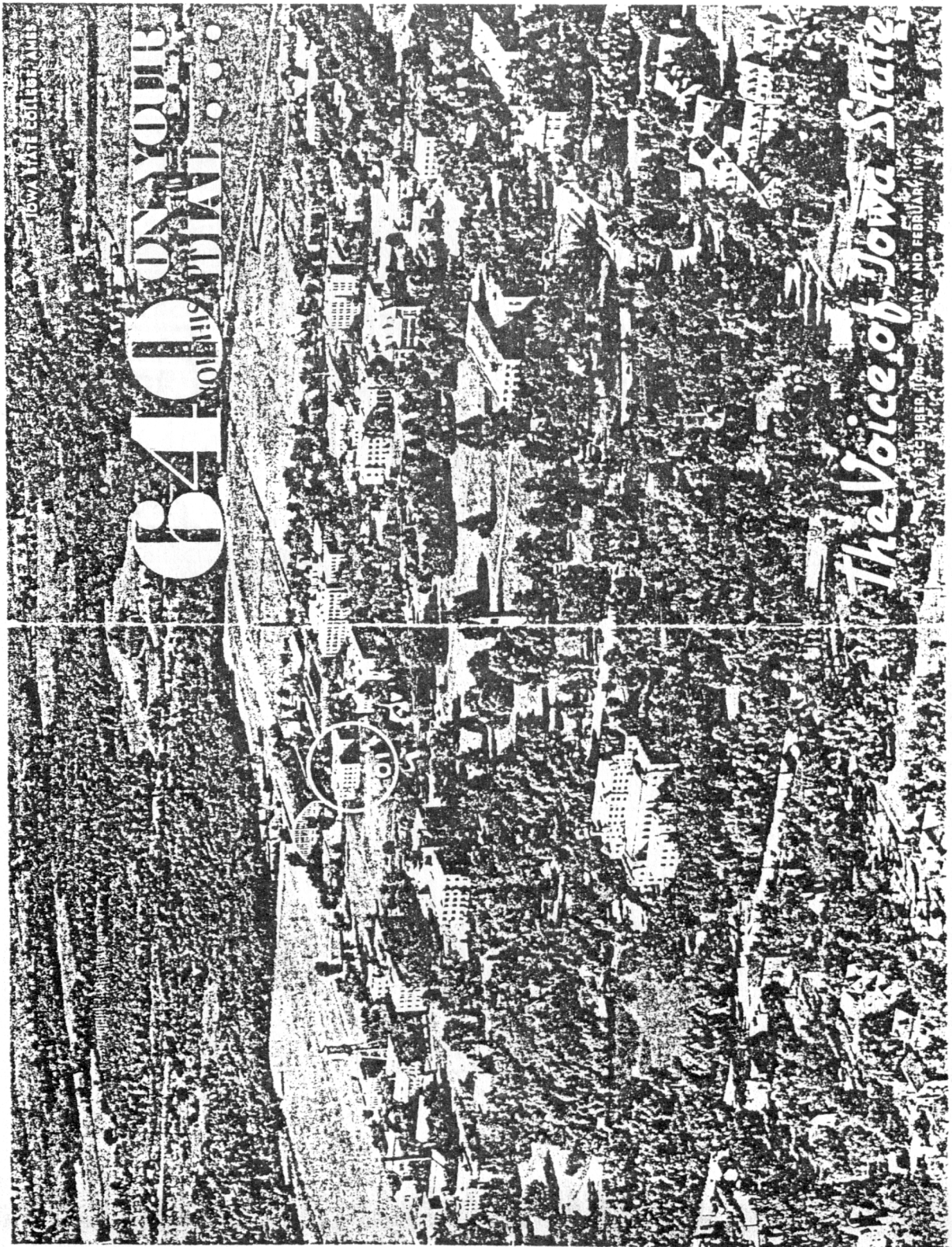
Mondays, 7:30 P. M.

Feb. 22	Care of the Cooling and the Lubricating System of the Auto- mobile, Prof. A. Shaw
Mar. 1	Care of the Fuel and Carburetion System of the Automobile, Prof. G. I. Mitchell
Mar. 5	The Care and Adjustment of the Ignition, Starting, and Lighting System of the Automobile - Mr. Virgil Gunder
Mar. 15	The Care of the Automobile Storage Battery - Mr. Virgil Gun- der
Mar. 22	Some Points on increasing the Mileage of Automobile's Tires, Prof. G. I. Mitchell
Mar. 29	Maintaining the Appearance of the Automobile, Prof. A. Shaw

Short Course Lectures on Farm Crops

THURSDAYS, 7:30 P. M.

Feb. 18	Increasing the Return from Oats, L. C. Burnett
Feb. 25	Red Clover, Prof. H. D. Hughes
Mar. 4	Alfalfa, Prof. H. D. Hughes
Mar. 11	Temporary Pastures, Prof. H. D. Hughes
Mar. 18	Lucerne Hay Crops, F. S. Wilkins
Mar. 25	Soybean for Iowa, F. S. Wilkins
Apr. 1	The Seedbed and Cultivation, Prof. F. R. Henson



The WOI Schedule

The winter months bring the shortest days of the year. The Federal Communications Commission requires that, as a daytime station, WOI sign off the air at sunset. Therefore we will leave the air at 4:45 p. m. during December, 5 p. m. during January and 5:45 p. m. during February.

WOI will continue to open the day's broadcasting activities at 6 a. m.

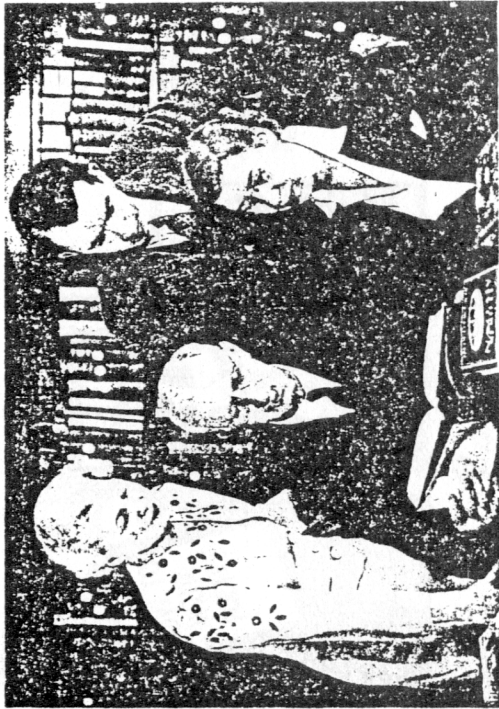
Basketball

WOI has received permission from the Federal Communications Commission to broadcast the home games of the Iowa State College basketball team during December. Andy will be at the microphone in State Gymnasium. It is also expected that permission will be obtained to continue the broadcasts of the home games throughout January, February and March.

The home games for the Cyclones, with starting times planned for the broadcasts over WOI are as follows:

- Dec. 4-7 p. m.—Cornell College.
- Dec. 7-7:15 p. m.—Coe.
- Dec. 21-7:15 p. m.—Grinnell.
- Dec. 31-7:15 p. m.—Drake.
- Jan. 6-7:15 p. m.—Montana State.
- Jan. 18-7:15 p. m.—Missouri.
- Jan. 25-7:15 p. m.—Nebraska.
- Feb. 17-7 p. m.—Oklahoma.
- March 1-7:15 p. m.—Kansas State.
- March 3-7 p. m.—Kansas.

Cooperative Extension Work in Agriculture and Home Economics, Iowa State College of Agriculture and Mechanic Arts and the United States Department of Agriculture Co-operating Extension Service, E. K. Ebbes, director, Ames, Iowa. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.



Prof. Charles H. Brown, Librarian, is seen here in a radio book conference with Betty Wells, Robert Orr (standing) and Victoria Hargrave (seated).

Books on the Air

Betty Wells

Winter is the time for books. Time to catch up on your reading. And time to listen to the latest books read over the radio.

Set your alarm clock so that it'll go off in time to remind you that Betty Wells comes on the air at 10:05 each week-day morning, to read a complete chapter of the newest "best seller" on the shelf. Betty has a dandy list of books for the three dead-of-winter months just ahead, and she's inviting you to settle down in a cozy chair by the radio every morning to listen while she reads them.

Together with the State College Library staff, Betty has picked a list of four books from the very top of the current "best seller" list: "Home for Christmas," by Lloyd Douglas, "Mr. and Mrs. Meigs," by

Elizabeth Corbett, "Gabriel's Search," by Bella Lattes, and "The Bird in the Tree," by Elizabeth Goudge. They're all good books, and you'll want to tell your friends you've heard Betty Wells read them, cover to cover.

Here are some first-glance comments by Betty Wells:

HOME FOR CHRISTMAS In this charming novelette, the five Claytons, although now middle-aged or more, return to the little farmhouse, where they had spent their childhood, to spend an old-fashioned Christmas. It is a rewarding experience for them all.

MR. AND MRS. MEIGS The well-beloved Mrs. Meigs of "She was Charlie Eaton" is in her forties now. The happiness of Carrie and Richard must be infectious, for Carrie's friend Bella and her old beau Fred (Continued on next page)

State College Library

Public Affairs

This is a time in world history when serious books on public affairs are especially important. It is a State College Library policy to keep a wide collection of such books on its shelves. Robert Orr is in charge of reference material at the library. Mr. Orr presents his weekly reviews on "Public Affairs" Tuesdays at 11:15 a. m.

He has listed some challenging books for review during the winter months:

Dec. 3—This Amazing Planet, by Roy Anderson.

- 10—AP: the story of news, by Oliver Gramling.
- 17—My Native Land, by Anna Louise Strong.
- 24—The Story of Cookery, by Louise Lamprey.
- 31—Home Town, by Sherwood Anderson.
- Jan. 7—Pan America, by Carleton Beals.
- 14—Suez and Panama, by Andre Slegfried.
- 21—Yankee Reporter, by S. Burton Heath.
- 28—The Trojan Horse in America, by Martin Dies.

Betty Wells (Continued from page 3) Parkinson spring a surprise by announcing their engagement.

GABRIEL'S SEARCH—In this story of pioneer Michigan life, Mrs. Lutes turns to the novel as a means of expression. She makes Gabriel a steadfast young man who abides by his own ideas with a total disregard for the community.

THE BIRD IN THE TREE—A sanctuary of peace and repose is Daurusschay, the home that Grandmother has built as a haven for her family. How this serenity is threatened by the unwise love of David and Nadine is the theme of Elizabeth Gougeon in this novel of character portrayal and pleasant writing.

Book Chat

Victoria Hargrave tries to make her book program both chatty and informative. She has a versatile mind, with wide interests, and proves it by her selection of titles for "Book Chats" Thursdays at 11:15 a. m. For example, here are some of the subjects:

- Dec. 5—Books for Christmas Giving.
- 12—Children's Books for Christmas Gifts.
- 19—Growing Pains, by Wanda Gag.
- 26—Vanishing Virginian, by Rebecca Williams.
- Jan. 2—Wings on my Feet, by Sonja Heuts.
- 9—Audubon's America, by Donald Crouse Peattie.
- 16—Do Not Disturb, by Frank Case.
- 23—Time Exposure, by William Jackson.
- 30—My Life in a Man-made Jungle, by Belle Deuchley.

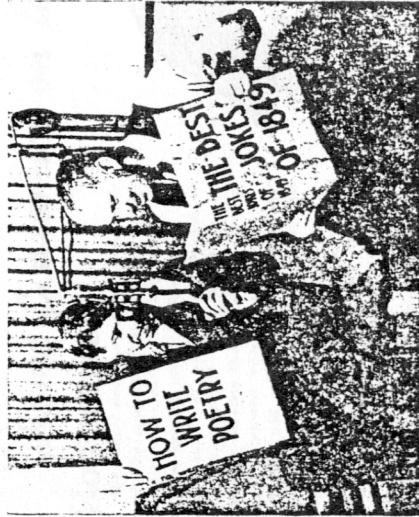
Radio Book Club

Information on how the WOI Radio Book Club works and how you may join can be obtained simply by writing to the Iowa State College radio station, Ames, Iowa.

A Book Club membership makes a fine Christmas gift. Hundreds of titles, both fiction and non-fiction, are available to the members. Each member receives a complete catalogue of this list, including notes.

Book Club reviews are presented over WOI every Monday and Friday morning at 8 o'clock by Miss Frances Warner of the State College Library.

A list of 24 books that have been added to the Book Club list since the supplementary list of Oct. 23, 1940, appears on page 6.



△ △
No one, as yet, knows which is Sam Reek's joke. Or Andy's verse.

△ △
A bit of horseplay lightens the early morning "Farm Facts" program.

Farm Facts

Says Andy: It gives a poem this morning. So-o-o—
We welcome friends throughout the nation To this astounding aggregation Of useful fact and synecopation.

It's called Farm Facts. Presiding is a man of steel— Though rusted some from head to heel The still has microphone appeal. I mean Sam Reek. Now bend an ear, a clean one please, Don't yawn or sigh or even sneeze, For he's allergic to a breeze. Now, quiet all. The time is ripe. Let's not delay. While shines the sun we'll make some hay. As soon as I can loudly say—

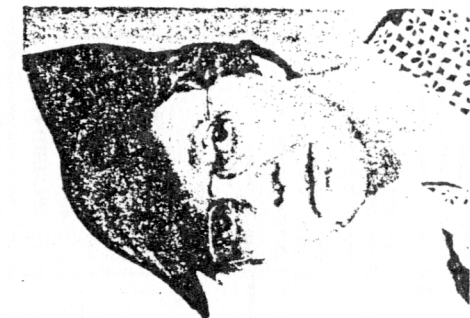
Here's Sam Reek. Whereat Sam rejoins: "Whandraya menn, While shines the sun? As I look out the window of Studio B all I see is a mass of Stygian darkness." (The hour is 6:15 a. m., the sun is far below the skyline.)

And Andy rebuts: "Well, that's merely poetic license." And Sam says, getting serious: "Well, there's nothing poetical about the weather forecast for Iowa, which is—4c." And the folks seem to like it, judging by the letters and cards which come in.

But though conducted in a light-hearted manner, Farm Facts has as its chief function the broadcasting of farm news and information. During the winter the Horticulture Department will continue its period at 6:50 every Monday. The State AAA Committee will be heard every Wednesday at 6:30 a. m., and the State Department of Agriculture and Agricultural Planning Committees will alternate on Fridays at 6:30. Saturday periods are shared by the Soil Conservation Service, the REA and the Extension Dairy Husbandrymen. The dairymen appear on the second Saturday of each month.

Tuesdays at 6:30 a. m. are given over to Animal Husbandry, and Thursdays to same hour to Agronomy. Director R. K. Bliss sits down for a breakfast chat every other Tuesday at 6:50. Most of the other 6:50 periods belong to the Question Box. Preview of the News comes at 6:20 a. m. and Andy reports on livestock receipts at the principal markets at 6:45. Every Monday morning, Lauren Sobh, editor of economics publications, discusses market trends and the business situation.

Home Economics on the Air



Martha Duncan, the radio personality, is Mrs. Eleanor Wilkins at home.

Homemakers

The winter problems of the housekeeper, cook and mother will furnish material for many "Homemaker" programs during the coming months, according to Martha Duncan, mistress of ceremonies. Martha reports that the new "Homemaker" hour—9 o'clock, Monday through Friday—is proving very popular with radio listeners. Martha will continue, of course, to give her personalized menus every day in "Today's Dinner".

Holiday foods and party suggestions will be offered on several December programs. A few hints on what's in store for "Homemaker" programs:

Mondays: Horticultural Extension specialists will offer information on winter fruits and nuts, gifts for gardeners and preparations for the herb garden. Home Economists from the Extension Service will continue the recorded interviews from the homes of successful Iowa homemakers.

Tuesdays: The National Livestock and Meat Board will continue its series explaining the various meat cuts. In "The Designer's Scrapbook", Irene Buchanan, textiles and clothing expert, will tell more of the history of textiles.

Wednesdays: The National Dairy Council will divide this period with the Foods and Nutrition Department of Iowa State College. Martha reports that the emphasis will be on nutrition—vitamins, balanced menus, minerals, and related matters.

Thursdays: The Child Development Department has revived the series called "The Davis Family." Each week, the Davis family meets a new problem, which is reviewed and discussed by child development experts. The Applied Art Department will offer advice on "Camouflaging Poor Interiors." The Department of Household Equipment and Home Economics Education will present programs on occasional Thursdays and Fridays.

Fridays: The half-hour period will be shared by the Home Management, Institutional Management and Physical Education Departments.

News

Listeners are brought up to date on what has been happening on European and Asiatic war fronts while they sleep, as well as on occurrences on the national and Iowa scene. This 10-minute edition always includes a "breakfast weather forecast" and the temperature in Ames at the time it goes on the air.

A mid-morning edition comes on the air at 10 o'clock, emphasizing Iowa news, but without neglecting important national and international bulletins.

At the Lunch Hour
 "The Noonday News" at 12:15 p. m. is a 15-minute round-up of the morning's bulletins. Approximately one-third of the time is ordinarily devoted to international news, one-third to bulletins from Washington, New York and the Midwest, and one-third to Iowa news. A feature inaugurated on the "Noonday News" recently is a market summary, which includes the trend of livestock, grain and securities markets.

Two o'clock finds another five-minute newscast ready for presentation. Like the 10 o'clock news, this program is frequently handled by student members of the Radio News course at Iowa State College.

The WOI news schedule ends with the "News Summary" at 4:30 p. m., presented by Red Holmgren.

New Book Club Books

- 1520 Gilbert—Forty Years a Country Preacher
- 1521 Henle—Wings on My Feet
- 1522 Hertzler—A Doctor and His Patients
- 1523 Hough—Country Editor
- 1530 Kauffman—Urrricane's Wake
- 1524 Kerr—The Beautiful Woman
- 1534 McKeeney—The McKeneys Carry On
- 1525 Richmond—Mr. Beamish
- 1526 Rimhart—The Great Mistake
- 1527 Sealey—Whispering Cup
- 1535 Selfert—Hillbilly Doctor
- 1528 Spence—One Foot in Heaven
- 1531 Strong—If School Keeps
- 1529 Walpole—The Bright Pavillions

A bell rings 7 times on the United Press teletype machine in the WOI news room. Flash!

An important event has taken place somewhere in the world. Adolph Hitler has announced a new axis diplomatic move; President Roosevelt has sent a message to Congress; or a new national comlinking champion has been crowned in Iowa.

Within a few minutes, the announcer breaks into the program now on the air to introduce Red Holmgren, WOI newscaster. Briefly, Red tells the listener what has happened, reminds him that more details will be presented in the next regular news summary.

The person who keeps his dial tuned to 640 all day can keep abreast of the news. One of the largest news-gathering agencies, United Press, plus an alert radio news staff, furnish listener insurance against ignorance of events.

Headlines in the News
 The first news broadcast is presented at 6:20 a. m., just 20 minutes after WOI goes on the air. This is a headline summary of overnight events. It might be called a preview of the "First Edition," which is aired at 7 a. m.
 "The First Edition" is more detailed and longer than "Headlines in the News."

Prof. W. J. Gillett, director of WOI, has just announced a list of 21 additions to the WOI Radio Book Club. This list supplements the Eighth Catalog and the supplementary list issued Oct. 23, 1940. The Book Club numbers, authors and titles are as follows:

- 1532 Adams—From Many Lands
- 1515 Althorn—The House of Lee
- 1533 Bottom—Heart of a Child
- 1516 Bretz—I Beg Again
- 1517 Douglas—Invitation to Live
- 1518 February—The Family
- 1519 Galton—The Secret Front

Children's Songs

The very young listeners of Miss Edith Sunderlin's story program are learning how to sing. Miss Sunderlin has introduced several simple melodies on "From the Story Book." She repeats the songs frequently, so that the youngsters can memorize the words. Miss Sunderlin is also teaching the children how to play several games. Parents who have stories they want Miss Sunderlin to read, or record, are urged to send their requests to WOI.

The Drama of Facts

The Iowa State Players will continue their monthly dramatization in "Research for a Better Iowa." Here are some dates and titles. The time is 4 p. m.

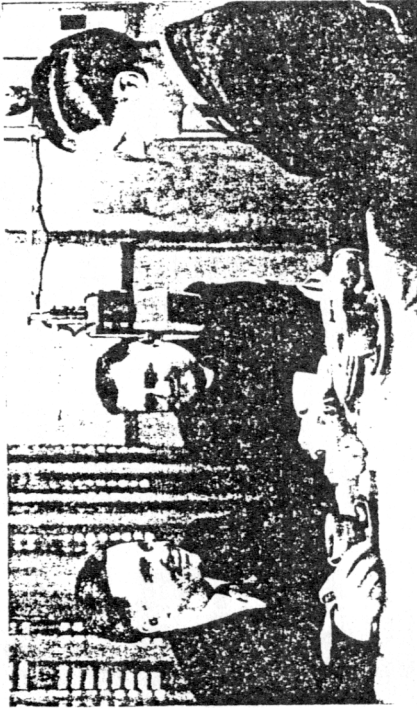
- Dec. 13—Conserving Iowa's Animal Wild Life.
- Jan. 10—Conserving Iowa's Bird Wild Life.
- Feb. 7—Feeding Cattle for Top Prices.

FOR EASY LISTENING

DECEMBER — JANUARY — FEBRUARY

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	TIME
6 00	Morning Parade	Morning Parade	Morning Parade	Morning Parade	Morning Parade	Morning Parade	6 00
6 15	Farm Facts	Farm Facts	Farm Facts	Farm Facts	Farm Facts	Farm Facts	6 15
6 45	Service Reports	Service Reports	Service Reports	Service Reports	Service Reports	Service Reports	6 45
7 00	First Edition News	First Edition News	First Edition News	First Edition News	First Edition News	First Edition News	7 00
7 10	Matins	Matins	Matins	Matins	Matins	Matins	7 10
7 30	The Music Shop	The Music Shop	The Music Shop	The Music Shop	The Music Shop	The Music Shop	7 30
8 50	Opening Markets	Opening Markets	Opening Markets	Opening Markets	Opening Markets	Opening Markets	8 50
9 00	Homemakers Martha Duncan	Homemakers Martha Duncan	Homemakers Martha Duncan	Homemakers Martha Duncan	Homemakers Martha Duncan	PTA Program	9 00
9 30	Service Reports	Service Reports	Service Reports	Service Reports	Service Reports	Service Reports	9 30
10 00	News	News	News	News	News	News	10 00
10 05	Betty Wells	Betty Wells	Betty Wells	Betty Wells	Betty Wells	Betty Wells	10 05
10 30	Mid Morning Markets	Mid Morning Markets	Mid Morning Markets	Mid Morning Markets	Mid Morning Markets	Mid Morning Markets	10 30
11 00	Intermezzo	Organ Reverie	Intermezzo	Organ Reverie	Intermezzo	(See Below) †	11 00
11 15	From the Story Book	Public Affairs-Mr. Orr.	From the Story Book	Book Chat-Miss Hargrave	From the Story Book	(See Below) ‡	11 15
11 30	Farm & Home Hour (NBC)	Farm & Home Hour (NBC)	Farm & Home Hour (NBC)	Farm & Home Hour (NBC)	Farm & Home Hour (NBC)	Farm & Home Hour (NBC)	11 30
12 15	Noonday News	Noonday News	Noonday News	Noonday News	Noonday News	Farm & Home Hour (NBC)	12 15
12 30	Midday Music	Midday Music	Midday Music	Midday Music	Midday Music	Noonday News	12 30
12 45	Service Reports	Service Reports	Service Reports	Service Reports	Service Reports	Midday Music	12 45
1 00	Midday Music	Midday Music	Midday Music	Midday Music	Midday Music	Closing Markets	1 00
1 15	Midday Music	Midday Music	Midday Music	Midday Music	Midday Music	Midday Music	1 15
1 30	Closing Markets	Closing Markets	Closing Markets	Closing Markets	Closing Markets	Midday Music	1 30
1 45	Closing Markets	Closing Markets	Closing Markets	Closing Markets	Closing Markets	Outdoor Iowa	1 45
2 00	News	News	News	News	News	News	2 00
2 05	Musical	Iowa State Today	Musical	Iowa State Today	Musical	Concert Master	2 05
2 10	Musical	Organ Recital-Mr. Chase	Musical	Organ Recital-Mr. Chase	Musical	Concert Master	2 10
2 15	It's Your Future	Organ Recital-Mr. Chase	To Be Announced †	Organ Recital-Mr. Chase	Music Department	Concert Master	2 15
2 30	It's Your Future	Child Study Club	To Be Announced †	Child Study Club	(See Below) †	Photo Fans	2 30
2 45	Piano Moods-Betty Blum	Child Study Club	Iowa State Medical Society	Child Study Club	(See Below) ‡	Musical	2 45
3 00	Masterwork	Masterwork	Masterwork	Masterwork	Masterwork	Masterwork	3 00
3 30	Masterwork	Short Story	Simpson College	Far Lands	Magazine Rack	Masterwork	3 30
3 45	Creative English	Drake University	Iowa State Dental Society	Far Lands	(See Below) †	Excursions In Science	3 45
4 00	Grinnell College	News Summary	News Summary	News Summary	News Summary		4 00
4 30	News Summary	AI Mitchell's Sports	AI Mitchell's Sports	AI Mitchell's Sports	AI Mitchell's Sports		4 30
4 40	AI Mitchell's Sports	Today's Music *	Today's Music *	Today's Music *	Today's Music *		4 40
4 45	Today's Music *						4 45

* Today's Music - will not be heard during December. It will be heard in the usual time slot during January and February.
 † To Be Announced - will be heard from 4:45 to 5:15.
 ‡ AI Mitchell's Sports - will be heard in the period from 5:15 to 5:30.
 ‣ D. W. J. N.Y.A. Program



This picture was snapped during a recent "Let's Talk It Over" discussion on the church in world crisis. Participants were the Rev. Alvin Reiness (left), the Rev. LeRoy Burroughs and the Rev. Jack Finegan.

Listen and Learn

Child Study Club

The four courses of the "Child Study Club," offered by the child development departments of the three state colleges in Iowa, will be continued in December, January and February.

The series are heard Tuesdays and Thursdays at 2:30 P. M.

Here is the schedule:

- Dec. 3—The Family Chores.
- 5—Shaking Hands With Santa Claus.
- 10—Play Materials for the Older Child.
- 12—Learning to Get Along with Others.

- Jan. 7—The Family Car.
- 9—Beginnings in Music.
- 14—How Much Homework.
- 16—Rating with the Group.
- 21—The Family Pocketbook.
- 23—Shall We Make the Child Obey?
- 28—Good Menus for the School Child.
- 30—Getting Started in a Job.

- Feb. 4—An Everyday Philosophy.
- 6—When Children Fail to Tell the Truth.
- 11—Beginnings with Motion Pictures.
- 13—Citizens in the Making.
- 18—Family Temper Tantrums.
- 20—Beginnings in Sex Education.
- 25—Learning How to Use Leisure Time.
- 27—Respecting the Adolescent as a Person.

Iowa State Today

To stay up to date on happenings and personalities at Iowa State College, tune to "Iowa State Today", which is aired Tuesdays and Thursdays at 2:05 p. m. News events on the campus are reported Tuesdays, while interviews with campus personalities are presented Thursdays. Don Jackson, senior in agricultural journalism, Phil Klass, senior in electrical engineering, and Claude Gifford, junior in agricultural economics, share the job of presenting the series.

PTA Program

Prof. W. I. Griffith, Director of Station WOI, has announced the following schedule of forthcoming PTA programs Saturday mornings at 9 o'clock.

The Iowa Council for Better Education will direct the periods on Dec. 7, Jan. 4 and Feb. 1.

The second Saturday of each month will be utilized by H. L. Koser of the Visual Instruction Service at Iowa State College.

The Mother Singers from the Des Moines PTA will broadcast a program on Saturday, Dec. 21, at 9 a.m. A PTA drama will be offered Jan. 18, under the direction of Mrs. Helen Lohrberger. Boy scout work will be the topic of a discussion by Mr. James Ihmer on Feb. 15.

The Iowa State Teachers Association will have charge of the program on Dec. 28, Jan. 25 and Feb. 22.

Medical Talks

Practicing Iowa physicians appear on the Iowa State Medical Society program every Wednesday afternoon at 2:45 to present a talk which they have prepared. During the next three months, the Medical Society series will include discussions of many of the ailments which afflict Iowans in winter.

In each talk, the physician tries to outline methods of prevention as well as of treatment. Listeners can secure a copy of any one of these talks by writing to WOI.

International Forum

The long-run problems of American foreign policy will furnish the topics for the "International Forum" program during the next two months. This discussion series, sponsored by the Ames Force Council, is broadcast the second and fourth Saturday of each month at 11:15 a. m.

Let's Talk It Over

Listeners have an excellent opportunity to air their own opinions on the "Let's Talk It Over" program, broadcast on alternate Fridays at 4 p. m.

On each program, faculty members and their off campus guests express themselves freely and informally on the subject under discussion, always chosen for its timeliness. At the end of the half hour round table, listeners are invited to send in their opinions on the questions, to have them read on the next program.

Young Ideas

Iowa State College students talk about their own problems every other Friday at 4 p. m. in the "Young Ideas" series. The microphone "eavesdrops" on this lively and controversial program for 25 minutes, and then a member of the Iowa State faculty steps in to bring the threads together and summarize the points that have been made.

It's Your Future

Young Iowa men and women owe it to themselves to make right vocational choices. A program designed to help them make those choices is "It's Your Future," broadcast Mondays at 2:15 p. m.

Prof. A. H. Hauswirth, director of the series, has announced the following schedule of dates and subjects:

- Dec. 2—Shall I be a Chemist?
- 9—Shall I be an Accountant?
- 16—Shall I enter Commercial Agriculture?
- 30—Shall I be an Artist?
- Jan. 6—Shall I be a Fireman or Policeman?
- 13—Shall I be a Baker?
- 20—Shall I be a Salesman?
- 27—Shall I be an Auto or Diesel Mechanic?
- Feb. 3—Shall I be a Barber?
- 10—Shall I be a Professional Agriculturist?
- 17—Shall I be an Electrical Engineer?
- 24—Shall I be a Hardware or Implementation Dealer?

From Your Loud Speaker

Music Department Al Mitchell's Sports

Twenty-four hours of sports happenings are condensed by Al Mitchell into a five-minute story through five days of the radio heard Monday through Friday, at 4:40 p. m., during December and January.

The national football scene, major league baseball's big deals, and a host of close-to-home sports notes about Iowa teams and stars are included in the summary.

Basketball, wrestling, swimming and track seasons will provide new topics during the winter, as Iowa State College teams and events are discussed.

The sports review will be heard at 5:15 p. m. through February, with 15-minute programs on schedule.

4-H Girls Clubs

The half-hour period at 11 a.m. on the first Saturday of each month is sponsored by the 4-H Girls Clubs of the state. Debates just arriving home from the National 4-H Club Congress will be featured on Dec. 7, and plans for a Christmas party will be outlined.

Mrs. Edith Barker, State Club Leader, will speak on "New Year's Resolution for the 4-H Club" Jan. 4, and Miss Ester Everett, nutrition specialist, will appear on the program Feb. 1.

The "Y" Presents

The Y. M. C. A. and Y. W. C. A. at Iowa State College are cooperating in a 15-minute variety program every Saturday morning at 11 o'clock.

The series, which includes music, talks and dramatic skits, is called "The Y Presents."



A number of special Sunday programs as well as the usual weekly recitals will be broadcast under the auspices of the Music Department of Iowa State College during December, January and February.

Handel's well-loved oratorio, "The Messiah", will be presented by the Festival Choir Sunday, Dec. 15, at 3 p. m. Prof. Tolbert MacLae, head of the Music Department, will direct the singers.

Prof. Alvin R. Edgar will direct the Iowa State Concert band in a recital Sunday, Jan. 12, at 3:30 p. m.

Service Reports

A total of two hours a day is devoted to broadcasting up-to-the-minute and detailed market news over WOI. Service reports are presented at 6:45 a. m., 8:50 a. m., 9:30 a. m., 10:30 a. m., 12:45 p. m., and 1:30 p. m., Monday through Friday. Closing markets are summarized at 1 o'clock on Saturday.

Telegraphed reports pour into the station from the time that the markets open in the morning until they close in the afternoon.

The Morning Parade

Start the day right by listening to "The Morning Parade," 15 minutes of rousing march music, recorded by the nation's finest military and marching bands.

Listeners from points as far distant as Florida and Canada have written to WOI to comment on this peppy program.

- 2nd Wednesday - Home Demonstration Agents.
- 3rd Wednesday - Land Grant Colleges.
- Every Friday - "Uncle Sam's Forest Rangers"
- 1st Saturday - 4-H Clubs.
- 2nd Saturday - American Farm Bureau Federation.
- 3rd Saturday - National Grange.
- 4th Saturday - Farmers' Educational and Cooperative Union.

Photo Fans

"Photo Fans" is a program recommended for camera-conscious listeners. The series has now returned to a weekly basis, with Prof. H. I. Kooser continuing to be featured as mentor. The day and time: Saturday, 2:30 p.m.

Professor Kooser says that during the coming months he will discuss such matters as winter photography, outdoors and indoors, home portraiture, and organizing picture collections.

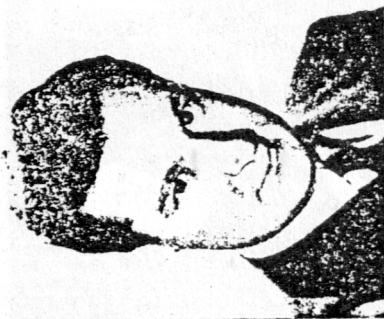
In addition to the main discussion, each program will include a summary of photo news and a question box. If you have a question, send it to Station WOI.

Listen to "Photo Fans" if you want details of the Second Annual Iowa State College Photographical Salon and Competition. All amateur photographers in Iowa and neighboring states are eligible to enter the contest.

Looking Ahead

Every spring, Station WOI welcomes outstanding high school music organizations which are generous enough to appear before the microphone for radio concerts. In the past, many of the finest glee clubs, orchestras and bands in the state have broadcast from the WOI studios.

High school music teachers and supervisors in Iowa are urged to start now to prepare their groups for recitals, and to send requests for time to the station.



Everett Mitchell

Farm and Home Hour

The "National Farm and Home Hour," now an institution on WOI, still features as master of ceremonies Everett Mitchell, Chicago's "ambassador of good weather."

His cheery "Lots of good luck, everybody" has served to identify him with the N.B.C. program since 1930.

Behind the "Farm and Home Hour" scenes is William B. Drips, now the Agricultural Director for N.B.C., who was once an instructor at Iowa State College.

Another Iowa State man identified with N.B.C. is Frank Mullen, who recently became Vice-President and General Manager of the network. Mr. Mullen graduated in agricultural journalism in 1922.

F. M. Russell, who also studied agricultural journalism in Ames, is now Vice-President of N.B.C. in charge of the Washington, D. C., office.

Following is a list of regular features on the "National Farm and Home Hour."

2nd Monday - Future Farmers of America.

Iowa Colleges on the Air

Drake University

The Drake Radio Theatre of the Air is heard Tuesdays at 4 p. m.

Dec. 3 Variety Theatre Juliette Rodfern, pianist, Margaret Christy, cellist, and Ben Harrison, organist.

10 William Bledso, assistant professor of economics, will present a book talk.

17 Organ program by Ben Harrison. "The Messiah," presented by the A Cappella Choir.

24 "Passersby," Christmas play by the Drake Radio Players.

31 Organ program by Ben Harrison. "Here's to the New Year," special variety program.

Jan. 7 Bud Caine, violinist, presents classical music.

14 Varsity Theatre, the prize-winning script in the 1940 Drake Playwriting Contest.

21 Fine Arts Faculty String Quartette.

29 Variety Theatre. Organ program by Ben Harrison.

Simpson College

Another college which makes weekly appearances on WOI is Simpson College, Indianola. The following programs will be presented Wednesdays at 3:30 p. m.:

Dec. 4—Simpson College Band.

11—Voice Orations. Christmas program, featuring music, poetry and strings.

18 Student music recital, featuring piano, voice, organ and strings.

Jan. 8—Two debate teams from the Speech Department.

15 Student music recital, featuring piano, voice, organ and strings.

22 Radio play, presented by the Drama Department.

Four Iowa colleges now have regular programs over WOI. They are Drake University, Simpson College, Upper Iowa University and Wartburg College. Grinnell College will inaugurate a weekly program as soon as work is completed on the new radio studio on the Grinnell campus. Pres. S. N. Stevens recently appointed Hovschel M. Colboert director of radio, to handle the new Grinnell series over WOI.

Wartburg College

Mr. E. L. Lemoine, chairman of the Wartburg College Radio Committee, has announced the following list of programs:

Dec. 12—Wartburg College Band, Prof. E. G. Heick, Director.

26—Christmas address by Dr. E. J. Brautlick, President. Christmas carols by the Junior Choir of St. Paul's Lutheran Church, Waverly.

Jan. 9—Musical selections. Also interviews with students from various departments and school organizations.

23—Waverly High School Band, Richard C. Baker, Director.

Upper Iowa University

The 4 o'clock period on alternating Thursdays is directed by Upper Iowa University, Fayette. The following offerings will be aired during December and January:

Dec. 5—Upper Iowa Symphony Orchestra, directed by Prof. Lewis Matthey.

19—A Capella Choir, directed by Prof. W. Everett Hendricks.

Jan. 2—Music recital, featuring Superintendent Burton North, of Arlington, baritone, Mrs. North, soprano, Mr. K. C. Whitcomb, clarinetist and Miss O'Hill, flutist.

16—Student Forum: "Should We Defend the South American Republics?"

30—Music recital, featuring Archibald Swenden, blind pianist from West Union, as guest artist.



Here are three organists who appear frequently on WOI programs. They are Mrs. Ona Searles Lantz (left), Mr. Howard Chase and Mrs. Pearl Converse.

Three Organists

We all know how important it is to pause once or twice a day, for a few moments of meditation. Designed to help us in those moments of quiet thought are the several organ programs broadcast by WOI every week.

The programs are presented by three different organists, each with a distinctive style. Heard on Tuesdays and Thursdays at 11 a. m. is Mrs. Pearl Converse, who plays the organ at St. John's by the Campus, the Episcopalian church in Ames.

Mr. Howard Chase, instructor in the Music Department, plays the organ in the Great Hall of Memorial Union Tuesday and Thursday afternoons at 2:10 p. m.

A quiet half hour of organ music is featured on Wednesdays at 4 p. m., with Mrs. Ona Searles Lantz at the console of the Collegiate Presbyterian Church organ.

Mrs. Lantz' program is sponsored by the Iowa State Dental Society, and it always includes a brief talk on the care of the teeth, presented by an Iowa dentist.

Matins Service

Start the day right by tuning to "Matins," a brief program of inspiration and sacred music. During the winter months, these speakers will bring the "Matins" messages:

Dec. 27, Rev. Jack Finegan, Head of Religious Education; Dec. 9-14, Iowa State College Students; Dec. 16-21, Prof. C. B. Rogers, Head of Technical Journalism;

Dec. 23-28, Rev. A. N. Rogness, Pastor of Bethesda Lutheran Church; Dec. 30-Jan. 4, Prof. J. A. Starrak, Vocational Education; Jan. 6-11, Iowa State College Students; Jan. 13-18, Rev. Walter Harlow, Pastor of Collegiate Presbyterian Church; Jan. 20-25, Dr. R. G. Wendell, Assoc. Prof. of English and Speech; Jan. 27-Feb. 1, Prof. Barton Morgan, Head of Vocational Education; Feb. 3-8, Miss Bouda Bower, Office Secretary of Y. M. C. A.; Feb. 10-15, H. D. Hughes, Prof. of Acronomy, assisted by Farm and Home Week visitors; Feb. 17-22, Rev. A. H. Barker, Pastor of First Methodist Church; Feb. 24-March 1, Missionary Speakers.

Books read over the air on WOI -- a selection through the years.

<u>Author</u>	<u>Title</u>	<u>Year</u>
Bess Streeter Aldrich	A Lantern in Her Hand	1928
Maristan Chapman	Homeplace	1929
H. G. Wells	The King who was a King	1930
T. S. Stribling	Backwater	1931
Ruth Sawyer	Folk House	1932
Meredith Nicholson	Rosalind at Redgate	1933
Patricia Wentworth	Fear by Night	1934
Gladys B. Stern	The Back Seat	1935
Honore Morrow	Let the King Beware	1936
Susan Ertz	Madam Claire	1937
James O. Curwood	Ancient Highway	1938
Joseph Lincoln	The Ownley Inn	1939
Edna Ferber	Buttered Side Down	1940
Mary Frances Doner	Not by Bread Alone	1941
Paul Gallico	The Snow Goose	1942
Lloyd C. Douglas	The Robe	1943
John Hersey	A Bell for Adano	1944
Willa Cather	My Antonia	1945
James Hilton	Goodbye, Mr. Chips	1946
Daphne DeMaurier	The King's General	1947
Charlotte Bronte	Jane Eyre	1948
John Galsworthy	One More River	1949
Stephen Vincent Benet	The Devil and Daniel Webster	1950

<u>Author</u>	<u>Title</u>	<u>Year</u>
Jane Austen	Pride and Prejudice	1951
Willkie Collins	The Moonstone	1952
Ruby Ferguson	Apricot Sky	1953
Eudora Welty	The Ponder Heart	1954
Charles Dickens	The Cricket on the Hearth	1955
Thomas Hardy	The Return of the Native	1956
John Steinbeck	The Pearl	1957
Ray Bradbury	Dandelion Wine	1958
Mary Renault	The King Must Die	1959
Dr. Thomas Dooley	The Edge of Tomorrow	1960
John F. Kennedy	Profiles in Courage	1961
Jeannette Eyerly	More than a Summer Love	1962
F. Scott Fitzgerald	The Great Gatsby	1963
James Agee	A Death in the Family	1964
Christopher Lasch	New Radicalism in America	1965
Mark Twain	Adventures of Huckleberry Finn	1966
Conrad Lorenz	On Aggression	1967
James Baldwin	Notes of a Native Son	1968
Erik Fromm	The Art of Loving	1969
T. H. White	Once and Future Kings	1970
Evelyn Waugh	Decline and Fall	1971
Vine Deloria	Custer Died for your Sins	1972
John R. Powers	The Last Catholic in America	1973
Woodward & Bernstein	All the President's Men	1974

<u>Author</u>	<u>Title</u>	<u>Year</u>
Sherwood Anderson	Winesburg Ohio	1975
Robert Persig	Zen and the Art of Motorcycle Maintenance	1976
Herman Melville	Moby Dick	1977
Virginia Woolf	The Dutchess and Jeweler	1978

APPENDIX E.
PHOTOGRAPHS

Photographs taken between 1922 and 1943 have been included in the copy of this thesis located in the Journalism Reading Room. There are 12 photographs in this collection including interior shots of WOI's earliest headquarters in the Electrical Engineering Department -- the studio and equipment rooms. Other photographs show the Service Building studio shortly after WOI moved there in 1938. These photographs were duplicated from prints found in WOI's history files in the Communications Building on campus. Other photographs are in the Special Collections department of the Iowa State Library.

Figure 1. Amateur radio station, 1921 or earlier

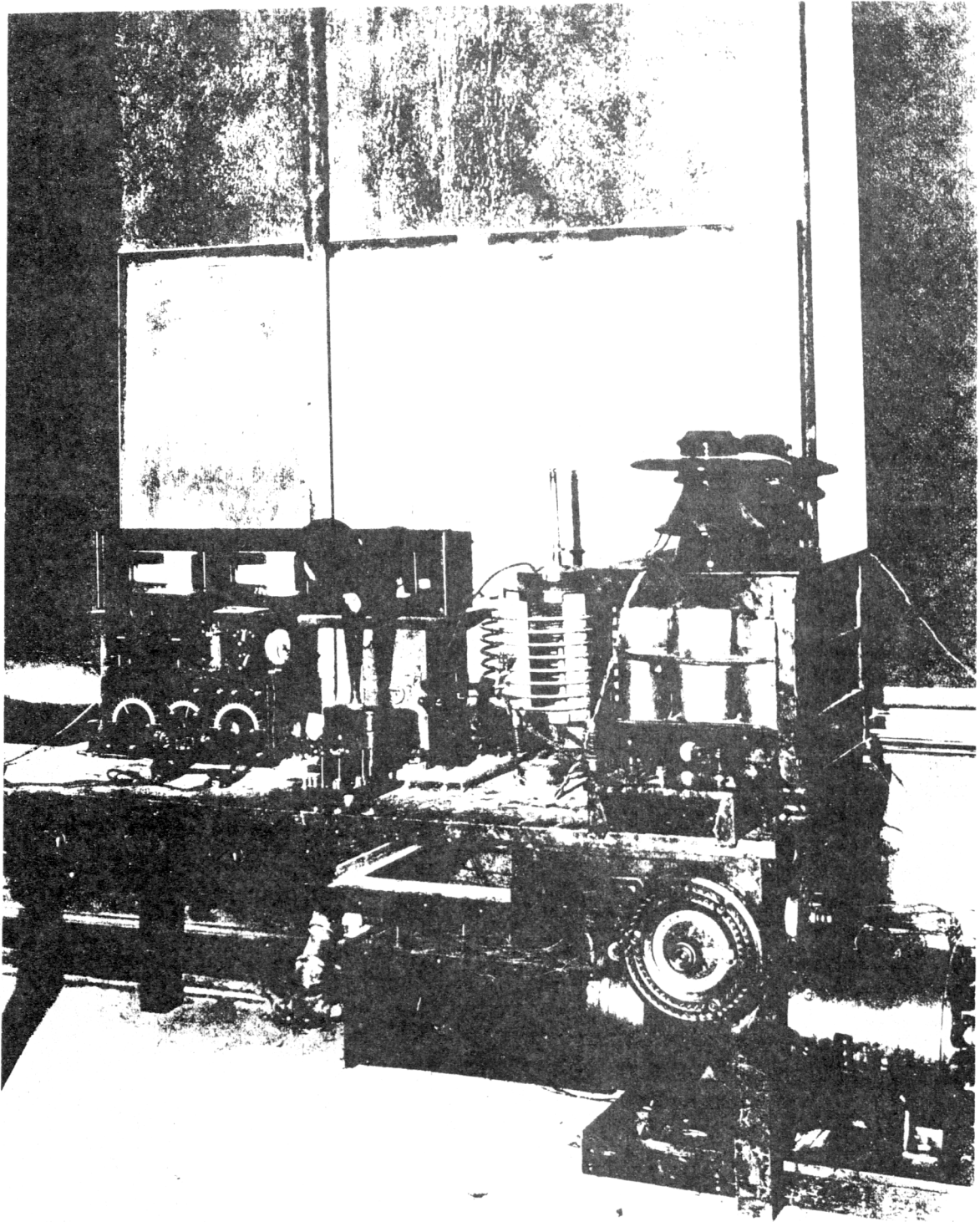


Figure 2. WOI Chief Announcer, Andrew G. Woolfries, 1926



Figure 3. Engineering Annex where WOI's studio was located on the third floor. Note the six-wire horizontal antenna strung above the building. Photo taken in 1922.

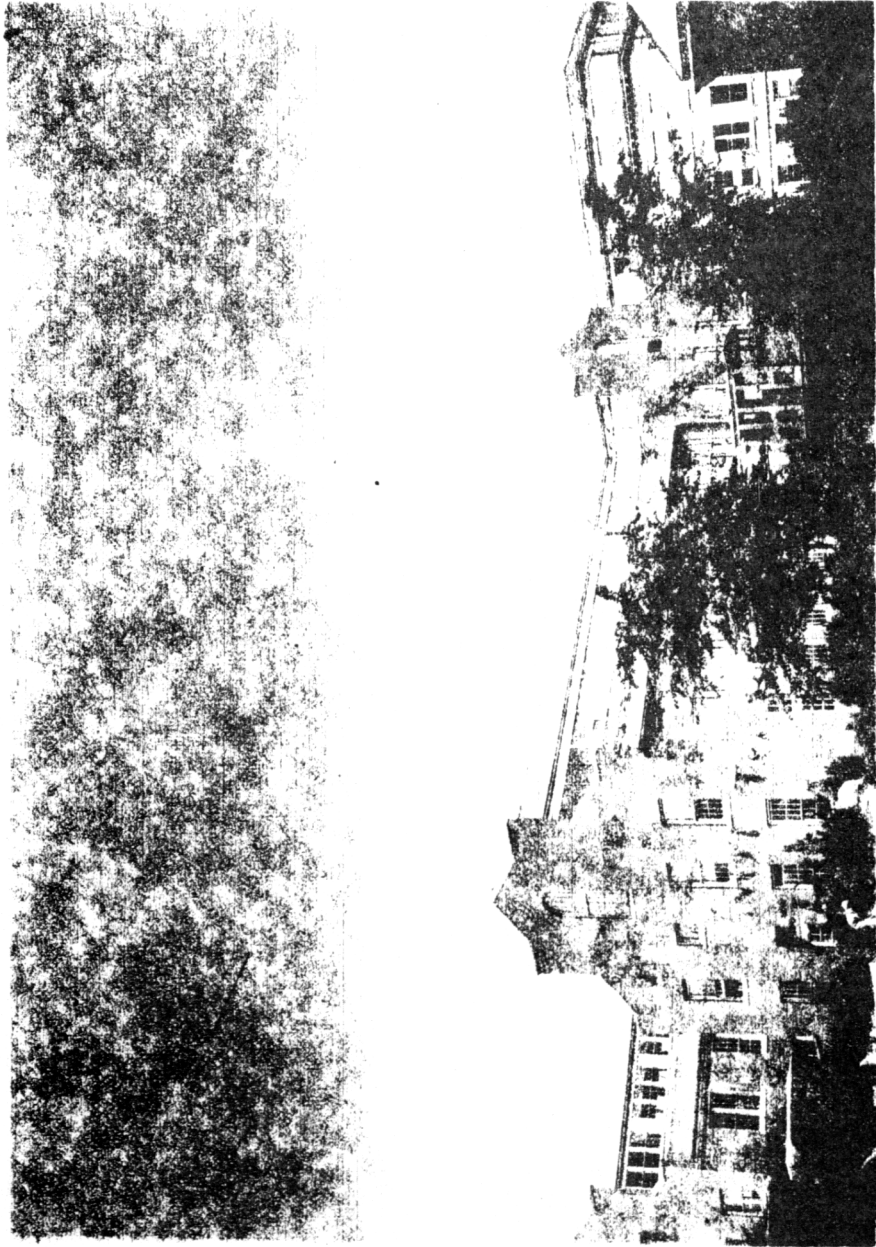


Figure 4. WOI studio, 1925. Note the home-made condenser microphone.

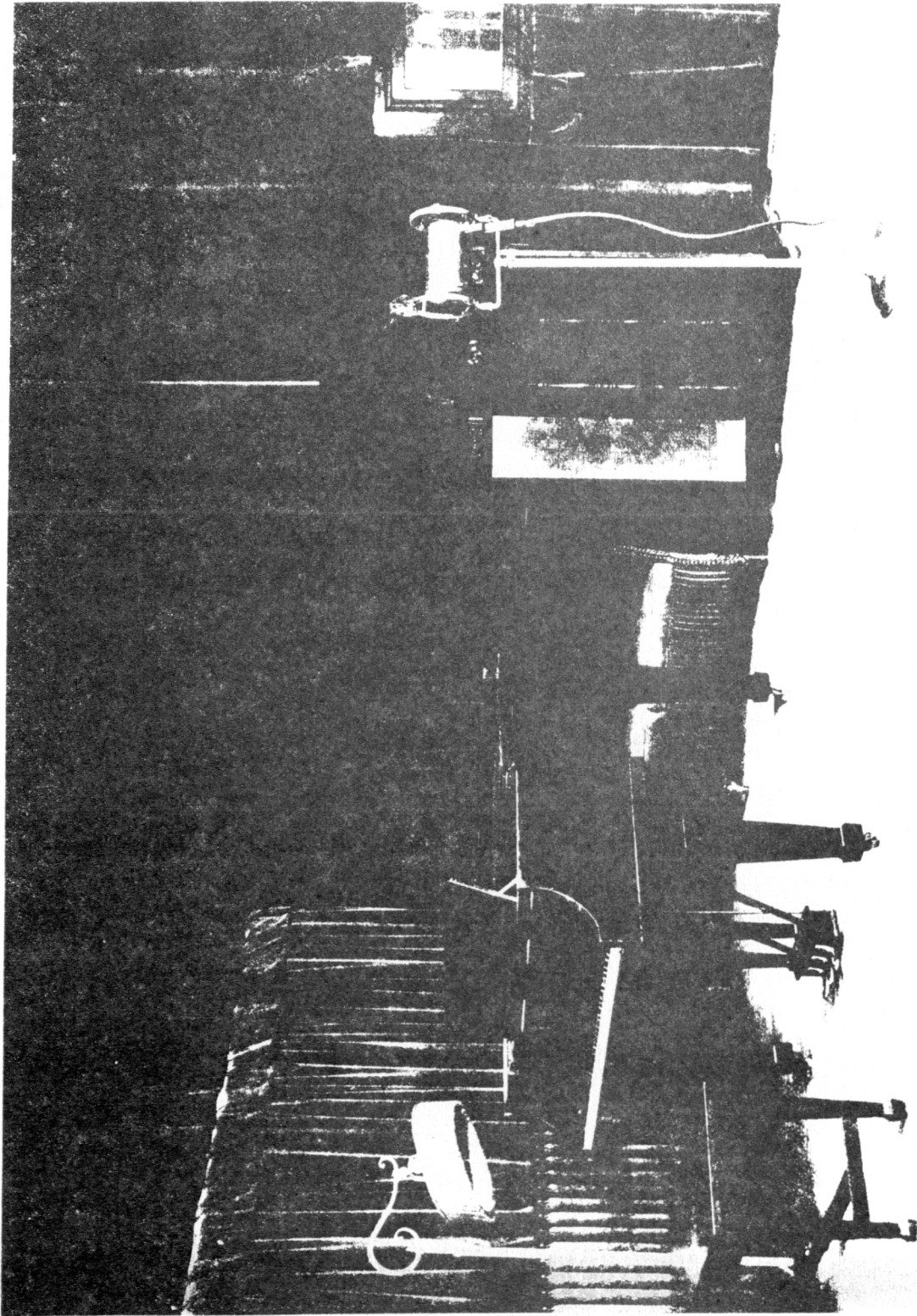


Figure 5. WOI studio, 1925. The heavy drapes reduced echoes. The announcer's booth is at the far end of the room behind the glass panel.

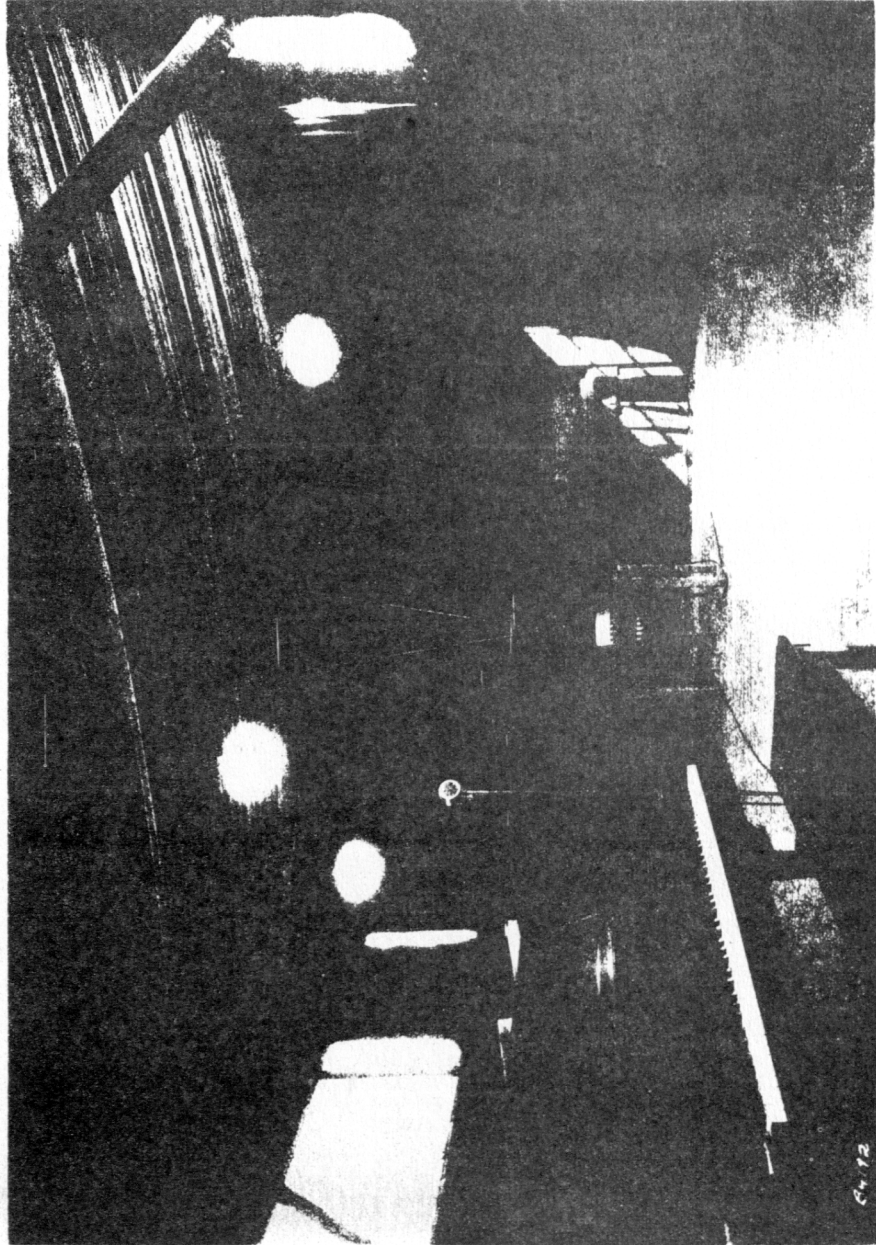


Figure 6. Broadcasting Committee and Operating Staff of WOI, February 23, 1926

Top row from left to right: Prof. H. A. Bittenbender, Poultry Short Courses; R. J. Rockwell, Engineer; Prof. R. K. Bliss, Chairman Broadcasting Committee; Prof. T. MacRae, Musical Director; Eugene Fritchell, Chief Operator; Prof. D. C. Faber, Delegate to Fourth Annual Radio Conference.

Lower row: W. K. Harper, Secretary, Broadcasting Committee; Prof. H. D. Hughes, Farm Crops Short Course; Andrew Woolfries, Chief Announcer; Margaret Haggart, Editor of Homemakers' Programs; Prof. W. I. Griffith, Program Director; Prof. F. A. Fish, Technical Director.

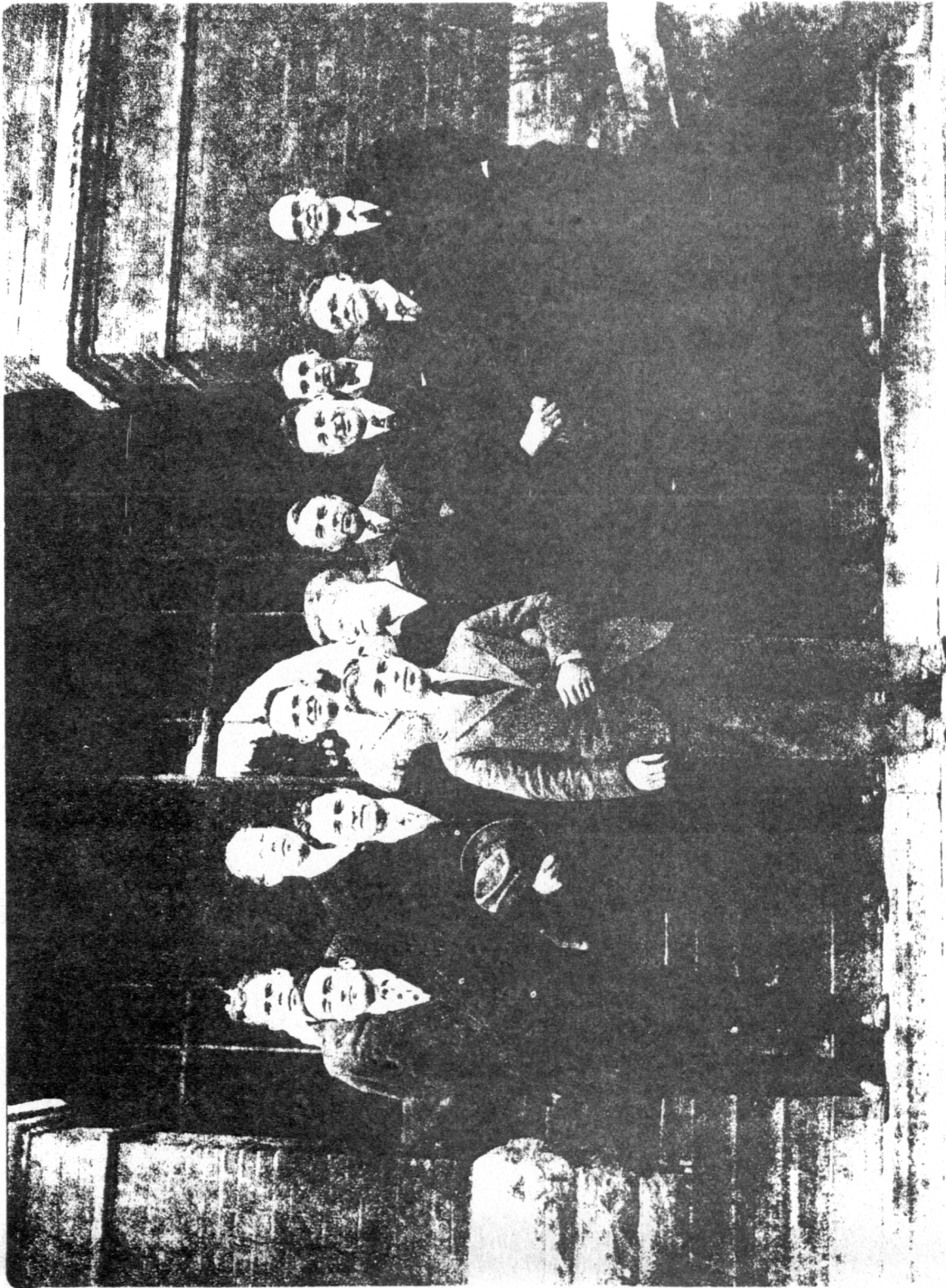


Figure 7. WOI transmitter, 1926

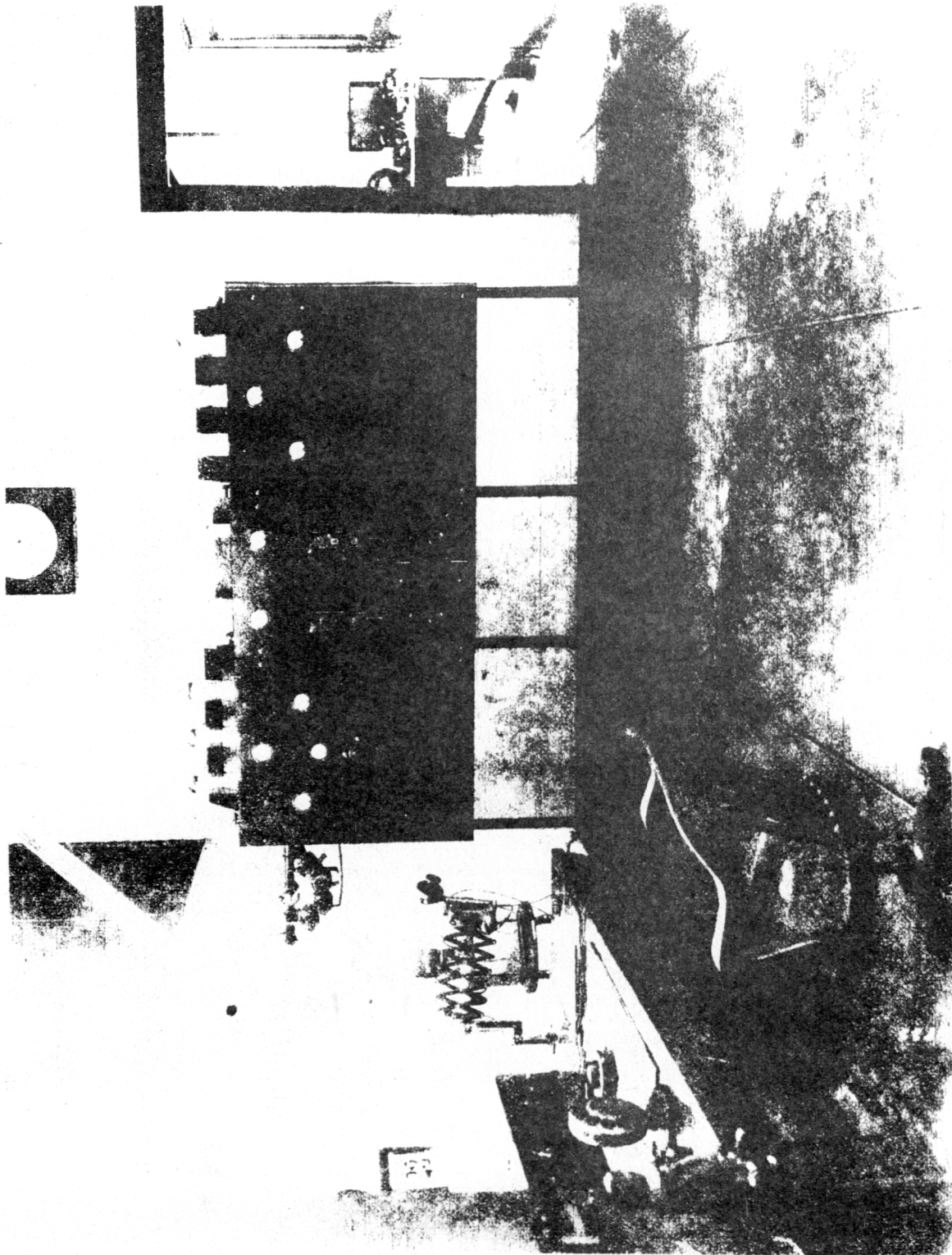


Figure 8. WOI input equipment, 1933

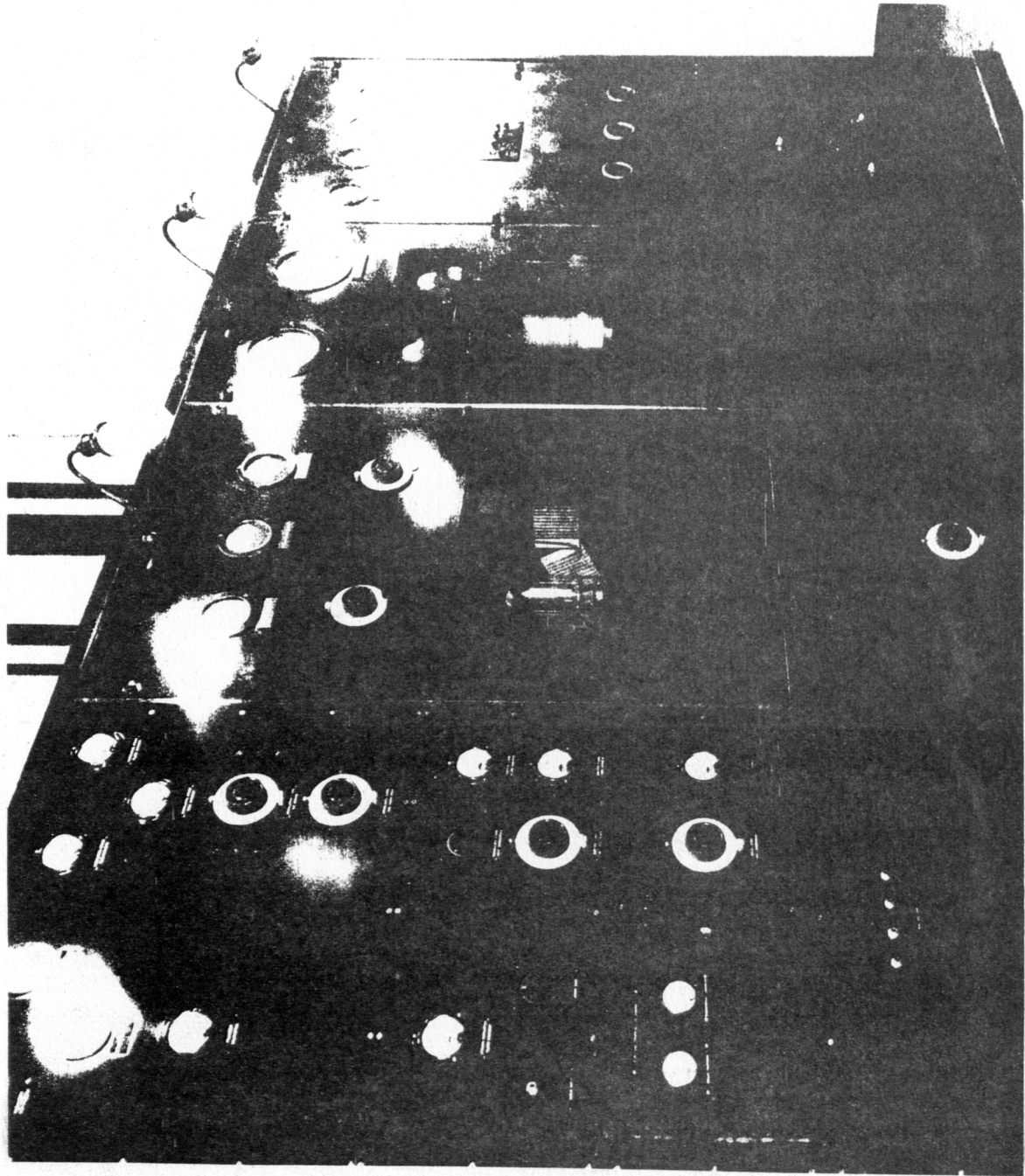
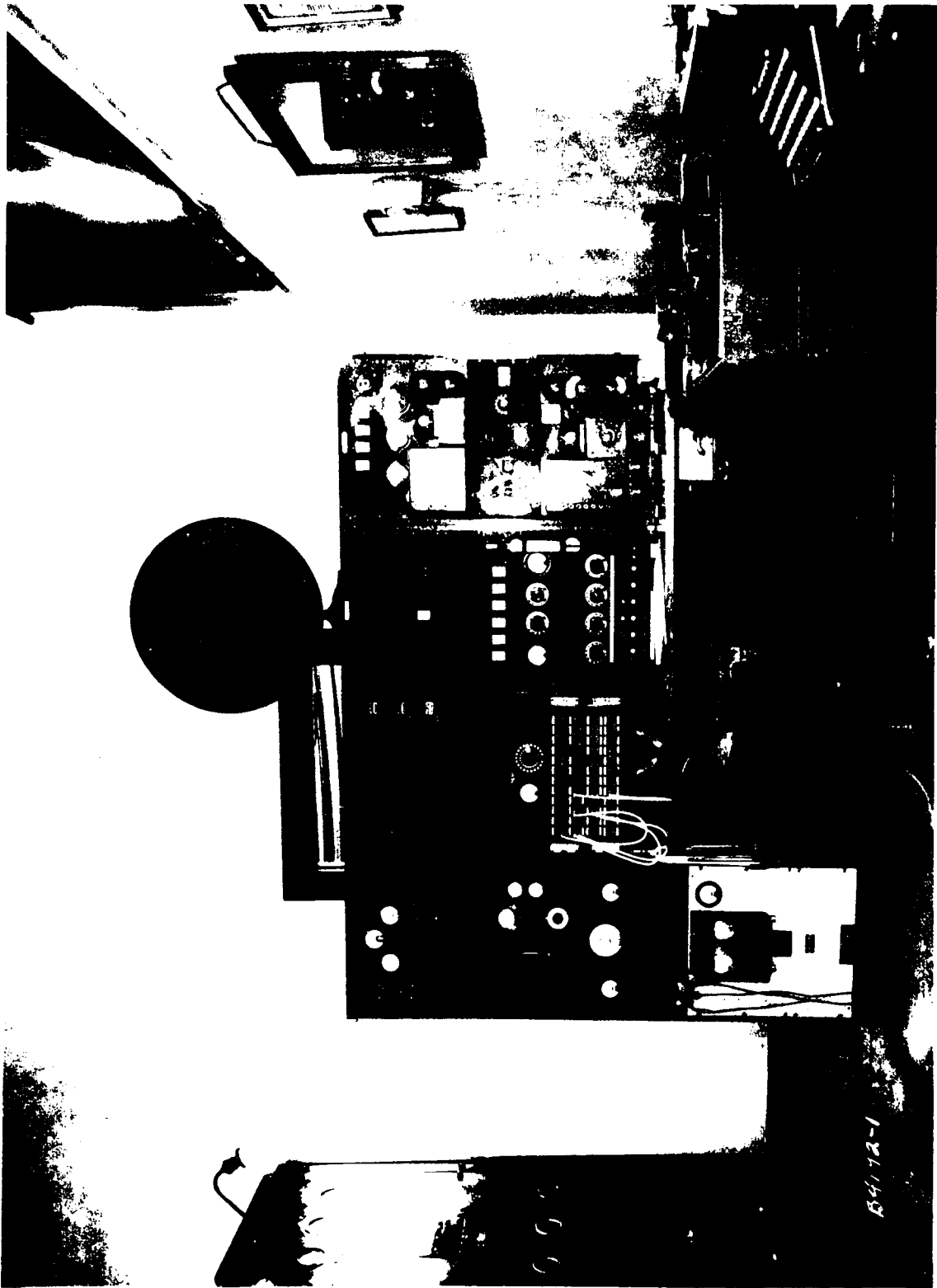


Figure 9. WOI operation control panel, 1933



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Figure 10. Reception area for new WOI facility on third floor of the Service Building, 1939

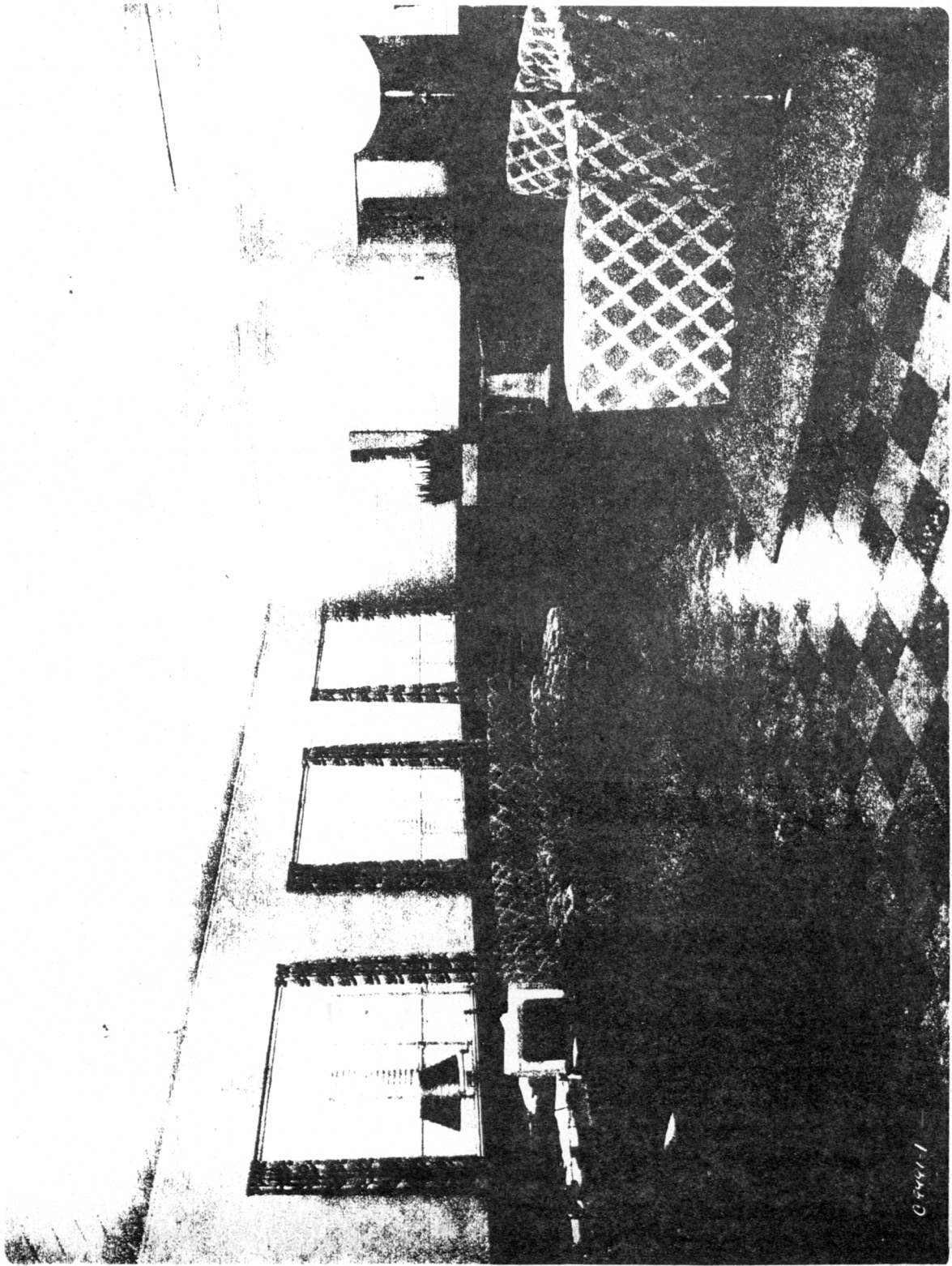


Figure 11. Studio "A" in Service Building facility

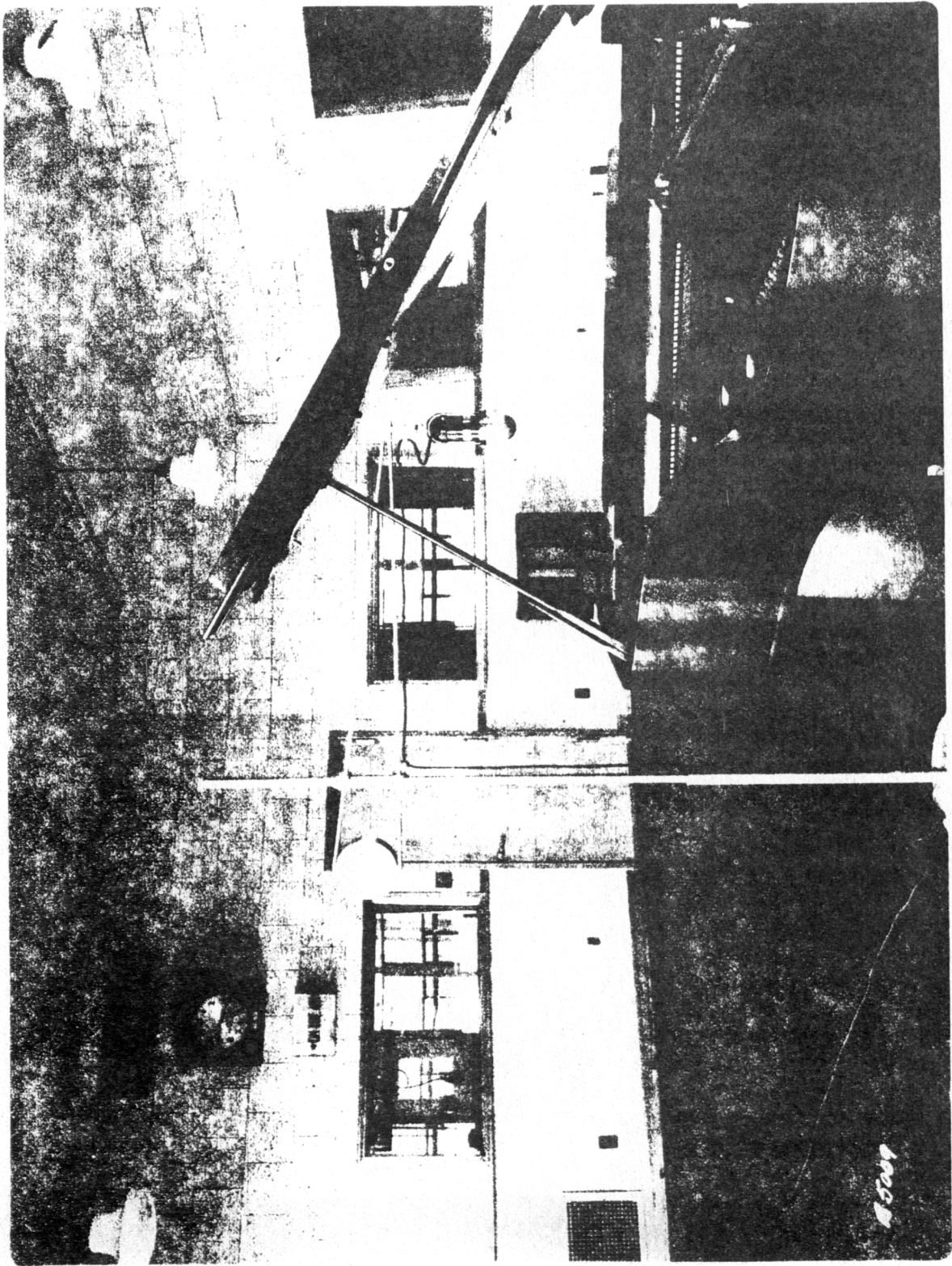


Figure 12. Engineer L. Lewis, standing near new RCA transmitter. Senior operator J. Miller, seated at control panel. About 1939.

