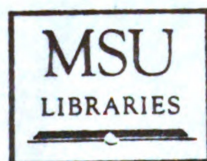


THE HISTORY OF RADIO
BROADCASTING AND RADIO
EDUCATION AT MICHIGAN STATE
COLLEGE 1917-1947

Thesis for the Degree of M. A.
MICHIGAN STATE COLLEGE
Robert William Kamins
1947

THESIS



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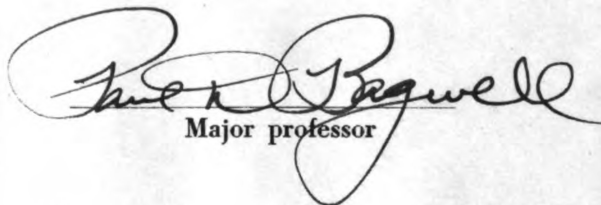
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Education At Michigan State College
1917 - 1947**

presented by

Robert William Kamins

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of the requirements for

Master of Arts degree in **Speech, Dramatics, and Radio**


Major professor

Date May 21, 1947

THE HISTORY OF RADIO BROADCASTING AND RADIO
EDUCATION AT MICHIGAN STATE COLLEGE
1917 - 1947

by
ROBERT WILLIAM KAMINS

A THESIS

Submitted to the Graduate School of Michigan
State College of Agriculture and Applied
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requirements for the degree of

MASTER OF ARTS

Department of Speech, Dramatics, and Radio

1947

THESIS

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ABSTRACT

The first use of wireless telegraphy at Michigan Agriculture College was during World War I when the college taught radio morse code to army personnel and civilians. From 1917 to 1922 an unofficial amateur radio station was operated on the college campus. In 1922 the federal government officially recognized a station at Michigan Agriculture College and assigned it the call letters WKAR. J. B. Haselman of the Publications department was given charge of the station and under his direction it operated several hours a day broadcasting agricultural, home economics, and classroom programs. Mr. Haselman resigned in 1926 and Mr. Keith Hinebaugh of the Publications department was appointed director of radio station WKAR. Mr. Hinebaugh did not relinquish his other duties with the Publications department and these other responsibilities prevented him from devoting his full time to the station. Therefore, a regular schedule of only one hour per day was maintained with special programs broadcast when they occurred. Mr. R. J. Coleman, Business Manager of the Music department was appointed director of WKAR August, ¹⁹³⁴~~1943~~ when Mr. Hinebaugh resigned. Mr. Coleman devoted his entire time to the station and this resulted in more broadcasting and a wider range of programming. The station's studios were located in the Home Economics building where they remained until new facilities were provided in 1940 in the Auditorium building completed that year. WKAR's frequency was changed from 1040 to 870 in 1936 and its power increased from 1000 to 5000 watts in 1939. A department of Radio was created in 1941 and Mr. Coleman was appointed head. This administration action removed the station from the jurisdiction of the Extension Division, Buildings and Grounds and Journalism departments.

Courses in radio education were first offered at Michigan State College

under the Journalism department. When the Speech department was established in 1938, radio courses were included in the curriculum. The courses were in Radio Speaking, Radio Announcing, and Radio Dramatic production. From 1938 to 1942 courses in radio were expanded to include graduate classes and a further development of the courses already in existence. A Master's degree in radio education is offered and staff personnel to teach radio has increased from the time when the head of the department was the only instructor for radio, to now, when an Associate Professor of Radio Education is in charge of all radio classes. An Assistant Professor, an instructor and graduate assistants aid him in teaching classes in radio. In 1938, radio classes were held in a make-shift studio in the Wood Shop. However, the Auditorium building provided the department with a modern studio, classroom, control room and technical equipment when it was completed in 1940.

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INTRODUCTION

It is the purpose of this thesis to show the historical development and growth of broadcasting and radio education at Michigan State College from an experimental stage during World War I to the current status of operations and educational opportunities. Like many progressive schools of higher learning, Michigan State has always been eager to gain new means and methods of improving its educational program and public service contact with the citizens of the State of Michigan. Radio entered this sphere of thought during the first World War when as an aid in the struggle against the Central Powers, radio morse code and other phases of this new communications medium were taught to students enrolled at Michigan Agricultural College. In the nineteen twenties, the development of radio broadcasting at the college progressed from experimentation to where true productive results could be ascertained. One of the first educational radio stations was established on this campus and is today one of the twenty-five remaining units of this nature in the United States. In the late nineteen thirties, the Speech Department at Michigan State College started developing its program to meet the change in times. A radio section was instituted. Every effort has been made since to provide the finest personnel and facilities available.

To adequately cover the many activities that have been recorded in this thesis, the author approached the problem from two major points of view. There are men and women on campus now who have been intimately connected with the movement of radio broadcasting and radio education at Michigan State College, who have provided the author with information and material otherwise unobtainable. By this interview method, the author was able to discuss the problem with Morris E. Grover, Chief

Engineer at WKAR since 1928; Robert J. Coleman, Director of WKAR since 1932; R. J. Baldwin, chairman of the Radio committee from 1928 to 1941; and Professor D. L. Hayworth, head of the Speech department when it was organized in 1938. From these men and other officials on campus suggested to the author by the above mentioned persons, the author proceeded to compile data and exhibits which would substantiate and expand the original material gained in interview. This research involved the study of all program bulletins of WKAR from 1926 to 1946; analysis of Michigan State College catalogues from 1935 to 1946; analysis of the yearly reports of Michigan Agricultural and Michigan State College presidents to the Board of Agriculture, plus a study of the enrollment figures of radio classes from 1938 to 1946. Compilation of all this data proved to be a difficult task in view of the wide area of subjects it covered and the 30 year period of time it engulfed.

HISTORICAL BACKGROUND OF RADIO INDUSTRY

The beginnings of broadcasting go back over two thousand years to 640 B.C. when a man called Thales of Miletus noted that amber acquires the electric property of attracting straws after being rubbed together. Thales' observation was man's first recognition of what is today known as static electricity. It took over a century and a half for science to make use of this discovery. However, in 1600 A.D., an Englishman, William Gilbert, produced a scientific treatise which went into more detail about the force of the electron discovered by Thales of Miletus. Guglielmo Marconi introduced wireless transmission to the world in 1895 when he sent and received his first wireless signals across his father's estate at Bologna, Italy. Immediately after World War I, the industrial might and scientific genius of the United States moved rapidly ahead in their effort to harness this wireless medium and fit it into the American way of life. In 1926 President Calvin Coolidge signed the Dill-White radio bill creating the Federal Radio Commission, and the supervision of the industry by the Commission eliminated the confusion caused by no control of frequencies and spectrum placement. The National Broadcasting Company, America's first national network, was organized and started operations during 1926. In 1934 President Roosevelt signed a bill into law establishing the Federal Communications Commission which superseded the Federal Radio Commission. The vast expansion of radio industry is shown in a survey listed in the May 6, 1943 issue of Life Magazine which reported 91.9% of the nation's families have radios. Frequency modulation and television stations loom on the immediate horizon and forecast even more complete service to the vast American listening public.

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Chapter 1

1917-1922

Michigan State College, in keeping with its policy of seeking new methods of improving its educational program and public service contacts with the citizens of the State of Michigan, inaugurated the teaching of radio morse code during World War 1 as an aid to the war effort. In April, 1917, Frank S. Kedzie, President of Michigan Agricultural College, asked a student, Morris E. Grover, to teach telegraphy at the college. Mr. Grover, 27 years of age and a freshman, gave up a part-time job in Lansing and was paid one-hundred and twenty-five dollars a month to teach part time. Assisting him in the organization and operation of the classes was Paul G. Andre, assistant professor in the Physics Department. A laboratory was constructed on the top floor of the Wood Shop on the campus and the Army Signal Corps provided one-thousand dollars worth of equipment to begin operations. Additional equipment, including generators, spark gap transmitters and high frequency buzzers was donated by the Army Signal Corps. Since part of the equipment was on the army "secret" list, a federal security agency was informed of the activities in which this equipment was used. Telegraphy and morse code was taught to Army personnel sent to Michigan Agricultural College for training and to civilians on the campus. Nine hundred army students and civilians took the courses which ended with World War 1. During that period of time, classes were held from nine o'clock in the morning until nine o'clock at night, with one hour off from twelve o'clock to one o'clock for lunch, and one hour from five o'clock to six o'clock for dinner. An army commendation was received by the college for the work done by Mr. Grover and Professor Andre.

Immediately after World War I, ten students in the Electrical Engineering Department took part of the equipment that had been used in teaching morse code and built an unlicensed radio station on the campus. The call letters 8YG were used for identification. Sporadic broadcasting took place from 1918 to 1923. No definite schedule was maintained and no licenses were obtained by the operators. The M.A.C. Wireless Telegraphy Service was set up during this period and messages were sent to other amateur operators throughout this area. This telegraphic service was free to all who wished to use it as it provided the students with experience and training in sending and receiving of wireless messages. 8YG broadcast as many campus activities as possible. The MAC Record, college alumni magazine, noted a "red letter day" in broadcasting at the college at the time the station carried an address by the college president, David Friday, to the Founders Day Meeting May 13, 1922. Six days later on May 19, 1922 the federal government formally authorized a radio station at Michigan Agricultural College. It was a 250 watt station operating on the wave length of 360 meters, which represents 1040 kilocycles and with no limit on the hours of broadcasting. The station, however, had equipment only to broadcast on a power of 50 watts.

The call letters assigned to the station were WKAR which are still being used today. The letters have no significance. In addition to the WKAR call letters, the federal government assigned the station the call letters 8XBU. The latter set were assigned for experimental purposes at the college.

In 1925 the federal government discontinued giving two sets of call letters and the radio amateur club of Michigan State College assumed

these letters for amateur radio purposes. The radio club today still has the same call letters 8XBU. Although the college has been officially authorized to operate a station its recognition on campus was very limited. For example, Professor B. K. Osborn of the Electrical Engineering Department tells of the occasion when Dean Bissell of the Engineering Division walked into room 111 Olds Hall and saw all the transmitter technical equipment piled on his lecture table. The Dean was not aware of the purpose for which the equipment was being used so he ordered it placed on the floor and out of the way. Professor Osborn notes that the next time WKAR went on the air it did so from the floor.¹ When Dean Bissell was told what the equipment was for he set aside a portion of room 111 which was partitioned off and this became the WKAR broadcasting studio.

From the time the initial license was granted in 1922 until April 1923 when a director was put in charge of WKAR no regular programming took place. It occasionally broadcast musical programs but the station was still more of an experimental outlet for electrical engineers than it was a medium for the dissemination of information and entertainment.

1. Osborn, B. K., interview March 31, 1947, Michigan State College.

Chapter 11

1922 -1934

Mr. B. J. Haselman of the Publications Department was put in charge of WKAR in April, 1923. Mr. Haselman still maintained his other duties in the department but in addition was authorized to manage the radio station. Mr. F. I. Phipenny, who was one of the original students who put the "ham station" on the air in 1918, and who later became a licensed radio operator, directed the technical work of WKAR under the supervision of Professor Sawyer of the Electrical Engineering Department. Although Mr. Haselman took charge of the station in April, a regular schedule of programs did not begin until January 23, 1924. During this ten month period, new equipment was built and bought, and work on a regular schedule was begun. A one-hundred forty-five foot tower was erected half-way between the Engineering Building and the Foundry. With this new equipment, WKAR was able to operate on the 250 watts authorized by the federal government. Previous to this time the station had been operating on a power of 50 watts. The new equipment also resulted in the federal government raising WKAR's power from 250 watts to 500 watts. In January, 1924 the studios of WKAR were moved from room 111 Olds Hall to the fourth floor of the Home Economics building where the station operated for sixteen years. At this time the station added a slogan to its station break which said: "the oldest agricultural college in the world."² The MAC Record of April 24, 1924 described the new WKAR studios in the following manner:

2. MAC Record, March 26, 1923.

There is a main room, about thirteen by seventeen feet which is covered by olive drab drapes whose function it is to deaden the sound. At one end of the room is a board on which there are three lights . . one of which is green, one white and one red. The green light indicates that the operating room is not ready; the white means that everything is set and the red light signals that the program is on the air. Off the larger room is another smaller room ten feet by ten feet by ten feet. This is used for talks. This studio is well-equipped - it has a rug on the floor, a piano, several chairs and a small table. A waiting-room off the broadcasting room is not used much but a monitor speaker will be installed there so that people visiting or waiting for a person who is on the air will be able to hear what is going on.

Although these studios were a major improvement over the small quarters in Olds Hall, there were certain defects in its efficiency. Professor B. K. Osborn notes two. Reception was hampered by the elevator in the Home Economics building which was picked up by the microphones and created a continuous hum over the air. The problem of programming was made more difficult in that many times the elevator was not available and speakers would have to walk up four flights of stairs to broadcast. This "climb", according to Professor Osborn, deterred many professors from accepting programs on WKAR. Professor Osborn recalls that when no programs were available the announcer and engineer would talk to each other over the air and describe to the listening audience what a broadcasting studio was like and what occurred when a program went on the air. Stations during this period were required to monitor 600 meters at all times and when distress calls came in from ships at sea the stations were to shut down and give the ships the air waves right away. WKAR participated in this public service.

The tower formerly located between the Engineering building and the

Foundry, was placed on top the Wood Shop in 1925 when WKAR's studios were moved from 111 Olds Hall to the Home Economics building, and the technical equipment was placed in the Power House.

In mid-1924 WKAR was placed under the jurisdiction of the Extension Division of the college, R. J. Baldwin, Director. One of the first acts taken under this new authority was a short-course program for farmers starting in April, 1924.

In November, 1924 WKAR was the recipient of new and more advanced equipment. The Consumers Power Company gave the station a new tower which was 182 feet high. At the same time the Detroit News, newspaper, which by this time was operating America's first commercial broadcasting station, WWJ, donated a Western Electric Radiophone transmitter valued at thirty-five thousand dollars. The Detroit station had purchased new transmitting equipment and in order to do its part in advancing non-commercial radio stations, presented their old equipment to WKAR.³

By virtue of obtaining this new equipment WKAR was able to increase its frequency to the 400-500 meter wave length, with permission of the federal government. The basic programming of the station consisted of agricultural and musical programs with football and basketball games being broadcast when the college teams were playing at home.

The first and only full-time announcer on WKAR, James Gamble, was hired in November, 1925.

Mr. Haselman instituted a series of programs for children in December, 1925. Selected to handle the program was Mrs. Dora Stockman, prominent

3. MAC Record, November 3, 1924.

Grange leader in Michigan, and an East Lansing housewife.⁴

The federal government gave Michigan State College permission to broadcast on 1000 watts and a one-thousand watt transmitter was put into use in January, 1926.

The type of service rendered by the station at this time and the distance it sometimes covered is shown by two letters received by WKAR and re-printed in the MSC Record of February 22, 1926. A letter from Silvertown, Oregon read as follows: "The first time I heard your station the reception was loud and reasonably clear. We would appreciate hearing your station often out here on the Pacific coast." The second letter was received in February, 1926 from the United States Secretary of the Navy. It read:

I desire to express my very great appreciation of the patriotic assistance which you rendered the Navy through lending the facilities of your station to broadcast in connection with Navy Day, October 27, 1925. Most excellent reports have been received of the broadcasting on that occasion, and it is trusted that should the Navy again need your assistance you will be in a position to render like services.

Mr. Haselman gave up his duties of WKAR director in early 1926 and Mr. Keith Hinebaugh also of the Publications Department took over. In addition to his WKAR responsibilities Mr. Hinebaugh handled all athletic publicity, was Extension News Editor, and issued college news dispatches for the weekly papers of Michigan. It was because of these other duties that Mr. Hinebaugh could not devote his full attention to the station and it operated regularly only one hour

4. MSC Record, December 7, 1925.

per day, from twelve o'clock to one o'clock. Another major problem with which the college had to contend was the government ruling that the station divide its time on the air with WGHP, Detroit.⁵ This arrangement meant that WKAR could not broadcast when the Detroit station was on and vice versa. Because WKAR was broadcasting so little the federal government decided that the college station no longer needed its full-time license or power of 1000 watts. Therefore on November 11, 1928 the station was notified that it was to reduce its hours to daytime only and was to reduce its power from 1000 watts to 500 watts. This did not affect the twelve o'clock to one o'clock schedule which was in operation from Monday through Saturday. Mr. Phipenny left Michigan State College in 1928 and Mr. Norris E. Grover, the present chief engineer, was hired to replace him. Mr. Phipenny is now associated with the United States Department of Commerce. Mr. Grover was given the added responsibility of handling all public address and radio systems on the campus; a responsibility he still holds today.

In 1927 President Butterfield of Michigan State College appointed a College Radio Committee.⁶ It included: John D. Willard, chairman and director of Continuing Education; H. H. Halladay; Professor H. H. Musselman; Professor M. M. Corey; Miss Irma Gross; Professor H. R. Hunt; Professor C. S. Dunford; Professor A. J. Clark; K. H. McDonel; and J. B. Haselman, Secretary.⁷

5. Frost, S. E., Jr., Educations Own Station, (Chicago 1937) p. 202.

6. McDonel, K. H., interview April 12, 1947, Michigan State College.

7. WKAR Bulletin, 1927, p.2.

Dean L. C. Emmons, who was a member of the committee from 1937 through 1941, characterized the committee as a "buttress or buffer". When certain groups or persons requested time on the air, and it would not be good policy to allow them to do so, the committee was called together and voted no. Then the director merely had to report that the executive committee in charge of radio at Michigan State College had rejected their request and the matter was closed. Dean Emmons said that the committee was "concerned with policy and programming and not with day to day broadcasting."⁸ R. J. Baldwin, chairman of the committee during the station's greatest period of growth, 1928-1941, commented that the committee under his direction did not meet at regular times. "Whenever a problem or policy-decision came up I'd call the committee together and a decision would be made; otherwise we did not meet." Mr. Baldwin further revealed that the committee had nothing to do with the budget of the station as that came under the Extension Division responsibility.⁹

From 1928 to 1934 the station was at a stand-still. The one hour daily schedule broadcasting was maintained with an occasional special broadcast. It featured classroom broadcasts from the Agriculture, Home Economics, and Liberal Arts Divisions; plus weather forecasts and market reports. The courses included on the schedule were on poultry, forestry, soils, muck farming, horticulture, landscaping, spring shopping, meals, house furnishing, kitchens and kitchen equip-

8. Emmons, L. C., Dean of Michigan State College School, Science and Arts, interview April 11, 1947.

9. Baldwin, R. J., Extension Director Michigan State College, interview April 11, 1947.

ment, international relations, rural literature, modern trends in education, principles of sociology, and Michigan Geology. Appropriations for the station grew increasingly smaller from the beginning of the depression which began in 1929. Then in 1934 Mr. Hinebaugh resigned to accept a position in Washington, D. C. Mr. Hinebaugh is today associated with the United States Department of Agriculture.

Chapter 111

1934 - 1939

The period from 1934 to 1939 was the greatest in expansion for WKAR in its first twenty-five years of existence. It was during this time that a full-time director of the station was hired, that its wattage was increased from 250 to 5000 watts, a new transmitter was built, and facilities for modern studios were provided in the Auditorium building. Mr. Robert Jesse Coleman, Business Manager in the Music Department, was appointed as director of WKAR in August, 1934. The appointment stipulated that Mr. Coleman was to spend two-thirds of his time at the station with the remaining one-third to be in the Music Department. In 1935, however, Mr. Coleman's position was redefined with the result that he became full-time director of WKAR. Mr. Coleman had previous experience in educational radio, having been full-time announcer and program supervisor at the Ohio State station, WOSU, from 1925 to 1929, and previous to this was with the education division of R. C. A. for one year. At the time of Mr. Coleman's appointment, the station was operating one hour per day, 12:00 o'clock to 1:00 o'clock. Four months later the station was operating three hours a day. In addition to agriculture and home economics, two departments of the state government were scheduled. They were the Departments of Conservation and Education. For the first time since 1926, all Michigan State football games were broadcast. Handling the play-by-play were Mr. M. G. Farleman and Mr. Coleman. Arrangements were made for a wire rebroadcast of the college games when Michigan State was away. A new feature was added November 5, 1934 when Mr. J. O. Swan of the Department of Modern Language offered a course in Spanish over WKAR. Mr. Swan broadcast every Monday for 15 minutes from November 1934 to June 1935. The text book used was Elementary Spanish Grammar and Reader,

by Garcia-Prada and Wilson, published by Appleton Century Publishing Company.¹⁰ No college credit was given for the course.

The Music Department started broadcasting in November, 1934 and has maintained its programs on WKAR up to this date.

1935

Mr. Coleman made two appointments to the WKAR staff at the beginning of 1935. Mr. Ronald Heath, a student, was hired as assistant announcer and Mr. Cecil Nickle was put in charge of dramatics at the station. Mr. Heath was paid through National Youth Administration funds. Mr. Nickle's appointment was on a non-paying basis as he had other duties as a teacher on the English faculty. Mr. Nickle produced a fifteen minute drama every Wednesday from January through April at 3:15 o'clock, using students as his talent. Starting in January, 1935, WKAR extended its broadcasting hours from 12:00 o'clock noon to 3:00 P.M., to 12:00 o'clock to 4:00 o'clock Monday through Friday. One hour of operations was maintained on Saturday from 12:00 o'clock noon to 1:00 P.M., with no programs aired on Sunday. There were special programs scheduled periodically which extended the time WKAR was on the air for the particular day in question. On January 3, 1935, WKAR broadcast direct from the classroom, a course of lectures on the Economics of the "New Deal." These classes were scheduled twice a week from 4:15 P.M. to 5:30 P.M., with each lecturer being a specialist in some phase of the adjustment program. Farmers Week at Michigan State College was from January 28, 1935 to February 1, 1935. WKAR was on the air from 9:00 A.M. to 5:00 P.M. during this period with special programs of Farmers Week.

10. Program bulletin WKAR, November, 1934.

Continuing its classroom programming schedule, WKAR aired a new program of this type starting February 7, 1935. It was titled "Biology and a New Deal" and was designed for listening by biology classes in high school. Lecture outlines were mailed to interested high school teachers. It was aired weekly from 2:30 P.M. to 2:45 P.M. in February, March and April.

Another Michigan department was added to the WKAR schedule in March as the Michigan Department of Agriculture inaugurated a series of fifteen minute programs each Tuesday and Thursday.

WKAR staff expansion was continued when in March, 1935, Jack Parker and Donald Hittle, students at Michigan State College, were hired as part-time announcers.

At the request of the college, the Federal Communications Commission conducted a hearing September 10, 1935 to determine the need for a change in frequency assignment for WKAR, and to study the request for more hours on the air. This hearing was attended by Director R. J. Baldwin, chairman of the radio committee, Robert J. Coleman, director of WKAR, and Norris Grover, engineer. Following the hearing, the commission granted a new frequency of 850 kilocycles, replacing the former assignment of 1040 kilocycles. This change was made on January 20, 1936 and permitted WKAR to be heard in many areas which formerly could not be reached.¹¹ The Lansing, Michigan newspaper, The State Journal, observed in a front page story January 20, 1936, that: "The new wave-length will increase the receiving area of the station as it now will be on a completely open channel."

11. Report to State Board of Agriculture, 1936, p. 205.

The Detroit area especially had been opened up. The commission also granted the college, on the basis of the September hearing, full daylight hours for broadcasting. This increased the time allotment from a designated period at noon and in the early afternoon to include the entire day. This increase enabled the station to broadcast an average of eight to nine hours per day as compared with three or four under the old assignment.

How WKAR compared to other college radio stations as to time on the air was shown in a report by J. Willis Brown of the Ohio State University Bureau of Educational Research. This report tabulated the results of a comparative study of twenty-three college and university broadcasting stations for the month of January, 1936. The national standing among these stations in terms of actual time on the air was given as:

1. WHUF - University of Florida.....20,595 minutes
2. KWSC - Washington State College....16,800 minutes
3. WSUI - University of Iowa.....16,725 minutes
4. WHA - University of Wisconsin.....13,995 minutes
5. WOSU - Ohio State University..... 8,520 minutes
6. WKAR - Michigan State College..... 6,180 minutes¹²

It should be noted that this was a quantitative and not qualitative report.

Mr. Coleman in his annual report to the Secretary of the College in 1936 discussed Professor Brown's report.

The above figures are not wholly accurate since the month of the survey, January, was a transitional period for WKAR; at that time the change in frequency and the first expansion of programs were taking place. During April, May and June, WKAR operated on a schedule of approximately 10,800 minutes per month. Ohio State University operates on its full quota allowed by the Federal Communications Commission, which is the above figure. WKAR has therefore passed WOSU in the standing. WHUF, University of Florida, operates as a commercial

12. Report to the State Board of Agriculture, 1936, p. 204.

station which makes their placing questionable when compared with strictly education stations. With these facts considered, it would seem that WKAR should occupy fourth place in the nation.

The tremendous increase in operations of WKAR is shown in a comparison of hours broadcast in 1934-35 and 1935-36. During the 1934-35 period WKAR broadcast a total of 435 hours and 41 minutes. One year later the station had broadcast 1,004 hours and 49 minutes which was an increase of 569 hours and 9 minutes, or a percentage increase of 130.4.¹³ This 1,004 hours broken down reveals the following figures. Departmental broadcasts, 256 hours and 13 minutes; non-departmental shows, 261 hours and 22 minutes; special broadcasts, 95 hours and one minute; and musical programs, 392 hours and 13 minutes.

During 1934-35, WKAR offered five programs in the nature of courses of study, previously mentioned in this treatise. However, starting in October, 1935, the station coordinated its classroom and lecture series programs under the Michigan State College of the Air title. No publicity other than announcements over WKAR were extended. Five courses were offered during the fall term of the college, October through the middle of December. 166 were in the five courses presented with the Spring term enrollment showing an increase of 327, the total being 493. Broadcasts direct from the classroom were offered during the winter and spring terms, including Survey of English Literature, Criminology, and Ethics of Christianity.¹⁴

In the Michigan State College of the Air there was no attempt made to give examinations or to record grades. The radio student was considered

13. Report to the State Board of Agriculture, 1936, p. 207.

14. Report to the State Board of Agriculture, 1936, p. 207.

as an auditor to derive such benefits as he would work for at home. A review of enrollments showed that the radio students graduated from high school between the years 1887 and 1935.

Specialized programs putting the facilities of WKAR at the disposal of high school music organizations were developed starting January, 1935. The programs were known as the "high school hour" and were presented each week. Mr. Coleman stated the purposes of this series were three-fold: "To give an incentive for students in high school to work for the broadcast and thus to assist the teacher; to permit a visit to the campus by the students in order that they might see Michigan State College; and to stimulate the listeners in the particular locality who would want to hear their own organizations."¹⁵ The series lasted for fourteen weeks with a different high school featured on each program.

1936

The studios located in the Home Economics building were renovated in January, 1936. The old out-moded draping material was removed, the walls were painted and pictures, loaned by the Art Department, were hung. New drapes were obtained for the window and door.

Previous to 1936 the college station received its appropriations via an indirect manner. No budget was set up in the Engineering, Buildings and Grounds, or Extension Divisions, as is now the case. Those in charge of WKAR had to constantly ask for funds on each occasion when such monies were needed.

For the first time in 1936, WKAR was able to provide for program needs through a budget set up by the Extension Division. This budget enabled the station to pay directly for services of student announcers and for

15. Report to the State Board of Agriculture, 1936, p. 207.

ensemble of music students. It also made possible the purchase of a library of record music without which it would have been impossible to provide the varied recorded musical portions of the programs. Under this budget it was possible for the station to maintain itself without constantly requesting additional funds.

The full-time staff of the station at this time was three, two in the technical division and only one, the director of the station, in the program and production phase. Five student announcers were employed on a part-time basis. WKAR was beginning to receive national recognition of its programming and public service broadcasts. For example, the Christian Science Monitor issue of January 21, 1937 printed a front page story devoted to the work of the WKAR feature: "The College of the Air."¹⁶ The headline for the story read: "College of Air called success in Michigan test." The column further stated: "The feasibility of teaching regular college courses by radio for the benefit of adults listening in their own homes, is said to be demonstrated by the Michigan State College of the Air. Student procedure is simple. Those taking the state government courses, for example, listen three times weekly to 50-minute classroom discussions. They can follow with their own textbooks and at the end of the term they get the same "exams" as those given to campus students. But they do not send in any papers."

1937

WKAR took a major step in its expansion program when in April, 1937 it filed an application with the Federal Communications Commission asking for increase in wattage from 1000 to 5000. Mr. Coleman in his

16. Christian Science Monitor, Boston, Thursday, January 21, 1937. Volume XXIX, No. 47.

annual report of 1937 termed this move. . . "consistent with the trend among other education stations." The WKAR director made one other important observation in his annual report when he noted. . . "the request is a matter of expediency. Radio facilities are rapidly being taken up and any plans for future expansion of WKAR must be carried out now, before existing facilities are depleted."

The previous year the "College of the Air" series had five courses offered over WKAR. The college year of 1936-37 included ten courses of study. Again no credit was given and no attempt was made to conduct examinations. The courses given were Farm Accounting, French, Spanish, Child Development, Soil Management, News Writing, State Government, Municipal Government, Contracts and Specifications, Shakespeare's Comedies, and the Spraying Calendar. Four of these courses were presented direct from classrooms on the campus. These were National Government, State Government, and Municipal Government, taught by Professor J. T. Caswell, and Contracts and Specifications taught by Professor C. L. Allen. Supplementing the "College School of the Air" series was an individual program set-up for high school classroom listening. The course was in Biology, and was titled "Man and His Environment." The departments cooperating in this program were Bacteriology, Botany, Entomology, Physiology, and Zoology. 1665 outlines were sent out to the schools of Michigan for this program. These programs co-sponsored by the station and individual departments indicate the increasing interest shown in the college station. 31 departments contributed to the years programs from October 1936 to June 1937. More than 150 faculty members appeared in regularly scheduled talks. Since the granting of full day-time operation to WKAR in January, 1936, efforts

were made to use every hour granted the station. The schedules for October, 1936 were arranged on an eight-hour day basis, for a total of 45 hours per week. Ten months later, the station hours per day had been increased to nine and one-half, totalling 57 hours a week. However, during the summer months of July, August and September, the station only operated two hours a day with the permission of the federal government. During the months of January, February and March, 1936, the first three months under the station's new allocation of frequency and time, it broadcast a 6:00 A.M. record program titled "Rising Sun Melodies". Then WKAR ceased operations until 12:00 o'clock noon when it came back on with the "Farm Service Hour" and continued broadcasting until 5:00 o'clock P.M. Starting in April, 1936, WKAR scheduled programs in the morning other than the 6:00 o'clock show. Classroom broadcasts were placed on the schedule as well as additional recorded musical programs. Special event programs were further developed by WKAR. Farmers Week from February 3, 1936 to February 7, 1936, provided the station with many special shows. For the first time, WKAR maintained lines of communication to the capitol building in Lansing from where several events of historical interest were broadcast. These included the inauguration of Governor Frank Murphy, the meeting for the organization of the House, the joint session of the Legislature commemorating the one-hundredth anniversary of the statehood of Michigan, which was addressed by former Governor Chase S. Osborn.

1937

A major improvement in the development of special event programs took place in April, 1937 when a mobile transmitter unit was put into operation. The portable transmitter, W8XSC, enabled the station to broadcast by

short wave, within a radius of ten miles, the signal being received at the transmitter and rebroadcast over WKAR. One month after W8XSC was operative, a new program feature was inaugurated. "The College at Work" was planned to bring to the attention of the public many of the activities of the campus which were not known to the casual visitor. These broadcasts included interviews and descriptions of agricultural experiments and timely visits to unusual points of interest on the campus such as the campus gardens, laboratories, and experimental plots. During the year two nation-wide broadcasts were made from the campus, both of which were carried by WKAR. The Varsity Show program of the Pontiac Motor Company was broadcast November 12, 1937 over a coast-to-coast network of the National Broadcasting Company. The National Farm and Home Hour, a daily feature of National Broadcasting Company, was broadcast April 20, 1938 from the campus of Michigan State College over ninety-two stations. On April 6, 1937 the Lansing State Journal began listing the WKAR schedule. (p.2). WKAR's schedule was the only individual station's complete programming that was listed by the Journal at this date. Highlights of other station's programs were printed, however.

The station's day-time grant from the Federal Communications Commission stated that it was allowed to broadcast from sun-up to sun-down. Thus, WKAR's schedule for a day grew progressively longer as the summer months approached and shorter as the fall and winter period came about. Fewer than ten of the educational radio stations in this country were attempting as complete a program service as that offered at WKAR,¹⁷ and one of the

17. Report to the State Board of Agriculture, 1938, p. 120.

reasons for this high ranking of WKAR was that for the first time in its history, it maintained a full eight-hour day schedule during the summer months.

In its organization, WKAR made an advancement. It started at this time to schedule departmental programs on a term basis rather than on monthly as formerly.

1938

The full importance of radio as a service medium was shown in figures released in January, 1938 by the National Association of Broadcasters. It showed that 1,122,200 families owned radios in Michigan. Within one hundred miles of East Lansing, 85 per-cent of these radio families were located. 142,000 farms were within one hundred miles in each direction from East Lansing.¹⁸ This potential audience available to WKAR if it had 5000 watts in power, made the acquisition of this increase highly desirable.

The portable short-wave transmitter was completely rebuilt under the direction of Mr. Morris Grover in 1939 and was relicensed by the Commission. Operating on 39,700 kilocycles, this mobile unit added many areas to which WKAR could broadcast special programs.

The Federal Communications Commission approved an increase in power from 1000 watts to 5000 watts on July 2, 1938. Mr. R. J. Baldwin, Chairman of the Radio Committee, said of this action: "The granting of the request made to the Federal Communications Commission for an increase in power opens the way for further development of service to the people of Michigan through the facilities of the college radio

18. Michigan State News, Friday, July 8, 1938, Volume 30-A.

station, WKAR.¹⁹ The construction permit was received on February 9, 1939, stipulating that construction should begin by March 30, and be completed by September 30.

Broadcasting hours of WKAR reached their greatest total up to that time in 1939, with 3,400. The summer schedule was the same as during the winter.

All matters pertaining to broadcasting at Michigan State College were still administered and determined by a College Radio Committee. The committee in 1939 was composed of: R. J. Baldwin, director of Agricultural Extension, chairman; J. A. Hannah, secretary to the State Board of Agriculture; Marie Dye, Dean of Home Economics Division; L. C. Emmons, Dean of the Liberal Arts Division; A. A. Applegate, Head of Publications and Journalism Department; H. R. Hunt, Head of Zoology Department; H. H. Musselman, Head of Agricultural Engineering Department; and R.J. Coleman, Director of WKAR.

19. Baldwin, R. J., "Wider Service", Michigan State News, July 8, 1938.

Chapter 1V

1939 -1946

The major changes at WKAR from 1939 to 1946 consisted of moving the studios from the Home Economics building to the Auditorium building, change in power from 1000 to 5000 watts, war-time programming, and the expansion of personnel.

During 1939 the Auditorium building was nearing completion. Even though quarters were small in the Home Economics building, the station maintained a schedule of eleven hours per day on the air throughout the 1939 calendar year for a total of 3,377 hours. Contributions from departments of the college agencies of the state government, service organizations, federal agencies, and music, predominantly recorded but with some "live" music, formed the basic programs on WKAR. In addition to these basic programs, student participation on the station under Mr. L. D. Barnhart was increased during 1939. Student programs such as the Dramatic Workshop, Sparten Quiz, Campus Capers, and A. W. L. children stories were aired. Mr. Barnhart, an assistant professor of Speech, had been appointed in September, 1939 as Production Supervisor of WKAR on a part-time basis. In-school-listening programming was continued in 1939 as the High School Biology series started its eighth consecutive year of broadcasting October 4, 1939. A series of similar programs were presented by the extension staff of the Music Department. It should be noted here that actual classroom broadcasts were no longer on the schedule of WKAR. Dean L. C. Emmons of the College Radio Committee stated that "from a technical standpoint, classroom broadcasting was inadvisable. One could hear the question put forth by the instructor,

but the answer given by the student was not heard."²⁰

While this actual programming was going on, station personnel was readying WKAR for its change of studios and power. On February 9, 1939 the Federal Communications Commission issued a construction permit to WKAR. Fifteen months later the transmitter and housing unit for it were completed. The transmitter was a 5000 watt Western Electric type, 405B1, employing the Doherty high-fidelity system and having air-cooled tubes. The serial number was 101 and was the first of its type to be installed by Western Electric. The heat from the air-cooled tubes was used to heat the building in which the transmitter was located. This building was located south of the Red Cedar river and east of the Farm Lane Bridge. The building was of concrete block, including a transmitter room, transformer room, work room, and combination office and auxiliary studio. The antenna, a 300 foot steel tower manufactured by Blaw-Nox, was of the shunt-excited type, and was topped by a 1000 watt flashing beacon. The ground system consisted of 480 bare copper wires, radiating from the base of the antenna a distance of 420 feet, with more than twenty miles of wire being required for this ground system.

New studios provided in the Auditorium building were located on the third floor above the main entrance to the building. Included in the radio suite were three broadcasting studios, control room, transcription studio, and observation corridor. In addition, there was a reception room, offices for the director and for the chief engineer, as well as a work room. Three consoles were provided, one for each studio. The studio and control room equipment was manufactured by R. C. A. Each studio was

20. Emmons, L. C., Dean, School Science and Arts, Michigan State College. Interview, April 11, 1947.

equipped with two microphones; studio C had a round table for discussion programs, while studio A had sound effect equipment for dramatic shows; studios A and B contained pianos for musical features.

Prior to 1940, WKAR had two newscasts per day, and these newscasts consisted of reading stories or articles from newspapers, both morning and evening editions, that were purchased by the station. In 1940, however, the presentation of late news was materially strengthened through an arrangement with Paul Martin, publisher of the Lansing State Journal. This arrangement provided that news broadcasts would be made from the offices of the newspaper through direct line service between WKAR and the State Journal. Newscasts were then given four times daily with material taken from teletype machines of Associated Press, United Press, and International News Service. Jack Callaghan, student announcer, broadcast the original series of these news programs.

Increased interest in the war caused WKAR to schedule more programs of this nature. Although the United States was not yet in the war in early 1940, heated discussions of a peace-time draft, and lend-lease programs resulted in many new program schedules. Typical of this period was Professor E. C. Prophet's program titled, "Geography and the News", which dealt with the geographical and topographical aspects of the European war. During this period many transcriptions were received from various private industries, philanthropic organizations, and nations wishing to present a picture of their land or ideals.

Typical of these transcriptions which were broadcast was "Lest We Forget", "I am an American", and "Excursions in Science".

During 1940, the Speech and Dramatics Department, one of the newest departments on campus, prepared and sponsored many programs over WKAR. Members of the department participated in such programs as: "Business

Writing", "Business Speaking", "Debate on the Air", "Dramatic Workshop", "Forum Discussion", "Speech Clinic", and "Theater Review".

1941

By authorization of the State Board of Agriculture on October 24, 1940 a Department of Radio was created and started functioning on January 1, 1941.²¹ It was a part of the All-College Division under the President. The Radio department was formed by transferring the technical activities and personnel from the Buildings and Grounds department and the program activities from the Publications department, to the new department. It also included the public address and the technical repair and construction services in connection with radio apparatus on the campus. R. J. Coleman, director of WKAR, became head of the new department.

Mr. L. D. Barnhart resigned from the college in 1941 and on September 10, 1941, Raymond J. Stanley was added as a member of the full-time staff of WKAR with the title of program supervisor.

December 7, 1941 produced a change in programming at WKAR. The Japanese attack on Pearl Harbor meant that this nation was at war and all agencies of the nation were called upon to mobilize for the war effort.

In keeping with this new responsibility, WKAR offered radio time to state and federal agencies which had been established to promote the war effort. Many of these took advantage of the offer and scheduled weekly fifteen minute and half-hour programs. These included the Michigan Defense Council, the Michigan War Board, the Michigan Nutrition in Defense Committee, and the State Board of Vocational Education. Federal agencies sponsoring programs over the station were, the U. S. Employment Service, Flying Cadet Board, War and Navy departments and Office of Civilian Defense.

21. Report to the State Board of Agriculture, 1940, p. 97.

Federal sources also provided the station with numerous transcribed programs on the war effort. They included "The Treasury Star Parade", "You Can't Do Business With Hitler", "Arms For Victory", "Neighborhood Call", "Meet Your Navy", and "Let's Be Neighbors". A daily program was also scheduled titled "Your War Notebook", which included various announcements and stories about the war. Transcribed and "live" 15 second, thirty second, and one-minute announcements advertising various war projects were scheduled throughout the day. Programs from departments of the college tended toward information about the war. They included "The Beginning of Things" by the Chemical Engineering Department, "Physics in Defense", by the Physics Department, and "Farmers are asking".

1942

A change in hours of broadcasting became necessary in February, 1942 when rules of the Federal Communications Commission compelled strict adherence to the daylight stipulation in the station's license. The six o'clock opening hour was discontinued, and two evening hours were added to compensate. During the first year of this new time schedule WKAR was on the air a total of 3,449 hours. Twelve months of war brought programs into sharper focus on WKAR. Programs previously mentioned, "live" and transcribed, state and federal, were continued. In addition, the Michigan Office of Civilian Defense, The American Red Cross, the Office of War Information, and The Office of Price Administration broadcast at regular intervals and provided the station with "spots" for announcements throughout the day. On the campus more faculty members and departments were called upon for programs which emphasized the war effort and the department's or faculty member's

special interest or ability in it. "Pre-War Germany" by Dr. Hans Leonhart; "The Road to Peace" by R. P. Adams; "Literature and the People's War" by members of the English Department; "Post War Issues" under the chairmanship of J. W. Price who used faculty members as a panel; "Peace Forum" by J. D. Menchofer who used students in his weekly discussions; "They Dared to Live" by Dr. Robert M. Bartlett, as well as special war effort features within the framework of existing programs, such as the "Home-makers Hour" and the "Farm Service Hour", were broadcast by WKAR as its continuing public service.

The war resulted in curtailment of driving through shortages of cars, rubber, gasoline, and rationing restrictions. This meant that many persons from over the state, who normally came to the campus for meetings and conventions, could not be present. WKAR endeavored to meet this situation by broadcasting as many special programs as facilities would permit. These included sixteen from Farmers Week which was cut to three days to aid in the war effort, an explanation of the rural scrap salvage program from the state capitol, an on-the-spot broadcast of the Michigan Jersey Cattle Club calf presentation, and highlights of the National 4-H Mobilization Week campaign.

Since WKAR is an independent station, it has no affiliation with a nation-wide network of broadcasting stations. However, the important messages being delivered over the networks concerning the war made it necessary that these special programs be made available to WKAR's listening audience. Negotiations were begun with WJIM, a 250 watt station in Lansing, Michigan, and with their network affiliate, the Blue Network. In October, 1942 an agreement was reached with both parties whereby a direct telephone line would be installed between

WJIM and WKAR. Then when non-sponsored programs of a public service nature were broadcast over the Blue Network, WJIM would "feed" the program via the special line to WKAR and hence to the college station's listening audience. Through this arrangement, messages by President Franklin D. Roosevelt, Maxim Litvinoff, Russian ambassador to the United States, Madam Chiang Kai-shek, wife of China's leader, and Winston Churchill, Britain's war-time prime minister were heard over WKAR. In addition to these special programs, WKAR gained permission to "carry" the Blue Network's daily feature "The National Farm and Home Hour". This arrangement could only have been made because the network program was un-sponsored, but two years later when the National Farm and Home Hour was sponsored and its "format" changed to meet certain commercial specifications, the network cancelled its agreement with WKAR with the exception of Saturday, when the program was maintained on its former non-sponsored basis.

1943

Another major programming step was taken in 1943 on February 17. With the consent of the State Board of Agriculture, WKAR began a series of programs originating on the campus of the University of Michigan. This one-hour weekly program marked the first time that WKAR had been used by the University for broadcasting from Ann Arbor. These shows were under the supervision of Waldo Abbott, director of broadcasting at the University of Michigan. In the agreement made, the two institutions provided for certain stipulations: that all material used by the University be subject to WKAR approval; no duplication of material by the University unless approved by WKAR; and that the entire series was subject to cancellation at Michigan State's request at any time. Prior

to July 1, 1942 all music programs on WKAR were obtained through records or by "live" programs either in the studios of the station or by remote "pickup" from the surrounding area. On July 1, the station contracted for the Standard Transcription library. This service, plus the records already in the station's files, gave WKAR basic library of 1,000 selections and an additional 40 were added each month. This service and the additions provided each month made a wider variety of musical programs possible.

All able-bodied men were being called into military service at this time. This produced an acute man-power shortage over the entire nation and WKAR was no exception. Particularly was the situation serious at WKAR for all its announcers and continuity personnel, and the majority of its operators were students in college and of the age being demanded by the armed services. By January, 1943, Linn Towsley, John Blakeslee, Richard Cole, George Fraser, Robert Ritter, Russ Lyon, John Marshall, Curtis Patton, Richard Power, Robbins Downey, Forrest Owen, Jack McIntosh, William Gladden, Kenneth Greer, Don Way, Paul Ritts, Tom Waber, Don Hittle, Ted Root, Dean Koch, Elmer Sedlander, and Program Supervisor Ray Stanley, had entered the service. As the war progressed, personnel changes increased. However, operations were not interrupted for lack of operators, announcers, continuity writers, or supervision.

Walter McGraw, a member of the Speech faculty, who taught the beginning radio classes, was appointed to the WKAR staff on a part-time basis, dividing his time between the two departments. Mr. McGraw was supervisor of production.

The football broadcasts, brought to WKAR listeners yearly since 1934, were for the first time during the 1943 season sponsored by a commercial

concern - - The Auto-Owners Insurance Company. The company paid the cost of lines, announcers and travel plus a fee, which went to the Athletic Department, for the rights to broadcast Michigan State's games. R. J. Baldwin, Director of the Extension Division of the college and Chairman of the Radio Committee, explained this move as being necessary to take care of the increased costs of broadcasting the football games. Mr. Baldwin said "the games away from home, for example, would have cost so much as to make the scheduling of the broadcasting of these games prohibitive. Therefore, we consented to this procedure".²² Dean L. C. Emmons, Dean of the School of Science and Arts, stated that "we were extremely careful in the choice of a sponsor, for certain types of products could not be commercialized over the college station". Dean Emmons explained further this point of commercializing WKAR: "The radio committee was approached many times for sponsored programs over the college station, but each request was turned down because it is a fundamental policy of the committee and the college to maintain an educational, non-commercial station." "There have been attempts to buy the station but again on each occasion, the offers were rejected."²³ Mr. Morris Grover, Chief Engineer of WKAR, expressed the opinion that the college could sell the station for a "million dollars" if it wished.²⁴

A major development in presenting the news over WKAR was the addition of a wire service. This service was secured at the suggestion of Michigan State College President, John Hannah. The one contracted for

22. Baldwin, R. J., Extension Director, Michigan State College, Interview April 11, 1947.

23. Emmons, L. C., Dean, School Science and Arts, Michigan State College, Interview April 11, 1947.

24. Grover, N. E., Chief Engineer, WKAR, interview March 15, 1947.

by the station was the radio wire of the newspaper service, Associated Press, Press Association. Beginning October 1, 1943, a five minute news summary was scheduled for each hour in addition to three fifteen minute newscasts per day. The Press Association also sends via its wire service, special feature programs which were incorporated into the daily schedule.

"As WKAR entered the winter season of broadcasting in 1943, many changes were apparent. More than 3,000 men in uniform were attending classes, which was almost half of the total enrollment of students. All teaching, the Experiment Station and The Extension activities of the college were geared to war. One-hundred twenty members of the faculty had left to join the armed forces."²⁵

During the eight weeks beginning July 1, 1943, WKAR broadcast twenty-four concerts by direct wire from the National Music Camp at Interlochen, Michigan. These programs, which in former years had been broadcast by the networks, were heard this year exclusively over WKAR. The reason for this exclusive broadcasting at this time was that the American Federation of Musicians Union, through its President, James C. Petrillo, demanded that the networks cancel their broadcasts of the Interlochen programs as the students appearing were not union members and their appearance on the air put union members out of jobs. Mr. Petrillo forced his demands on the networks through the threat of a strike. The networks finally gave in. Since WKAR is an independent, educational station employing no union personnel, Mr. Petrillo's action did not

25. WKAR Program Bulletin, October, 1943, Volume 10, number 1.

affect it and the Interlochen programs were broadcast over the college station.

1944

The impact of the war on the nature of programs continued to be very marked as WKAR presented a full quota of programs concerned with the war effort. The Office of War Information requested nine "spot" announcements daily, and during the year 2,775 of these were broadcast. In addition to all the previously mentioned programs, "live" and transcribed, news series were begun. From the faculty came such programs as "War Economics" by Herman Wyngarden; "What's to Come" by Paul D. Bagwell; "Behind the News in Germany", by Hans Leonhart; "Austria Before Occupation", by Eugene H. Lucas; "Our Enemy, Japan", by S. C. Lee and Tom King; and "Czechoslovakia, Our Ally", by Karel Hujer.

This was the period when federal and state governments were attempting to regulate time to aid the war effort. In Michigan, the State Legislature left the decision up to each local unit of government as to whether it would observe "regular or war" time. This resulted in confusion in Michigan, as fourteen counties remained on Eastern War Time, while the remaining counties were on Central War Time. Of specific concern to the station was its Farm Service Hour which was designed to reach the farmers of Michigan during their noon hour. However, different time zones meant different noon periods. To provide some farm program for each time zone, the farm program was extended to an hour and a half and some of the agricultural programs scheduled at other times were transferred to the noon hour. Markets and special bulletins were given in both areas. Some departments

doubled their time on the air to provide necessary programs.

Two new members were added to the full-time program staff July 1, 1944. They were J. Kenneth Richards, who had just received his Master of Arts degree in Speech, Supervisor of Production and Continuity, and Lawrence Frymire, who had just received his Bachelor of Arts degree in Speech, Supervisor of Programs. Both men had been on the staff on a part-time basis as continuity writer and announcer, respectively.

1945

January 7, 1945 WKAR began broadcasting on Sunday. Its schedule was from one to six o'clock. This was the first time that WKAR had attempted a Sunday program or a seven-day schedule. Highlighting the first thirteen weeks of Sunday broadcasting were messages by President John A. Hannah, direct from his office in the Administration building, a half-hour program by members of the Music Department faculty, and a series of "Implications of the Peace" arranged by Dr. Herman Wyngarden. Two remote programs were instituted in 1945 of an important public service nature. By direct wire to the East Lansing Weather Bureau, reports were made daily by M. E. Wills, meteorologist in charge. These reports, still made daily, give a complete summary of weather data for the state and nation, with suggestions for planning work during the succeeding days as a guide to farmers, gardeners, Great Lakes vessels, and airplanes. A new market service was instituted as a daily presentation June 18, 1945. This report is compiled by the State Department of Agriculture by telephone to the markets, and is given by direct wire to the office of the Director of Marketing at the capitol. Dramatic offerings of the station were expanded. In addition to the Radio Workshop presented weekly under the direction of Joe A. Callaway,

Associate Professor of Speech in charge of Radio classes, three other programs were instituted. "Electricity at Work for You" was presented three times and emphasized proper methods and uses of electricity on the farm. "Vignettes of College" depicting actual happenings on campus was given each week during the school year. The Rural School Program, directed toward classroom listening, offered dramatic presentations about the music being taught by the teachers cooperating in the Music Department Extension program. These three shows were written and produced by J. Kenneth Richards, Production Supervisor of WKAR.

By June, 1945, 50 men, former personnel at WKAR, were listed in the armed forces of the United States. One gold star is listed. John Hays who was an announcer in 1943, was killed in action. When peace was declared during the summer of 1945, WKAR's programming was altered to meet the change. Programs of peace and reconversion were highlighted. Included in this category were "The Labor Forum"; "Behind the News"; "Veterans Speak"; "Planning to Build"; "Veterans in Business"; and "Emergency Farm Labor". As in the past, regularly established programs from the Agriculture, Extension, and Music departments emphasized current problems of the moment in each particular field.

WKAR was the base station for a network of four Michigan stations which broadcast Michigan State College's football games during 1945. Again as in 1943, a sponsor was contracted and in this case it was the Coca Cola Bottling Company.

The war's end resulted in many former WKAR men returning to the campus. Charles Anthony, Alex Dillingham, and George Droelle as announcers, Tom Waber as a full-time staff member, and supervisor of News and Special Events, John Blakeslee, Linn Towsley, and William Wintersma,

as full-time operators. WKAR ended its 1946 broadcasting year with plans already laid for the future. An application had been filed for an F. M. station on May 20, 1946, an F. M. studio and control room had been built on the third floor, an application for night-time broadcasting and for an increase of its A. M. wattage had been filed with the Federal Communications Commission. The Program department had two full-time members in addition to the director. A news and special events supervisor and farm editor were appointed. The station has resisted all attempts to commercialize it and with the special exception of the football games, intends to maintain this policy. The basic programs of the station are secured from the United States Department of Agriculture, Extension Division, Music Department, and Speech Department. However, all departments on the campus are at one time asked to contribute to the schedule. Outside the campus, the State Government is making complete use of the proximity of station to reach citizens of Michigan. The station has come from a "ham unlicensed" experiment in 1917 to a complete department in 1947. 1947 is the 25th anniversary of the official authorization of the station to operate by the federal government and if its past history is a criterion to the future, WKAR will continue to grow in its educational and public interest service to the college and to the state.

Chapter V

1937-1946

This chapter deals with the curriculum, facilities, and personnel in radio education at Michigan State College, with the exception of technical courses in radio engineering offered in the Electrical Engineering Department.

Journalism 1937-1944

The first specific courses in radio education were offered by the Journalism department and were described in the official college Catalogue as follows:

303f. Radio Writing. Fall. 2(2-0) Prerequisite:
English Composition 102g.

A study of the special field of writing for radio, with practical work in the preparation of radio continuity, including program and commercial announcements, forum and round table discussions, the radio talk, music annotations, newscasts, original and adapted dramatic sketches, and radio production. Mr. Norman.

303g. Radio Writing. Winter. 2(2-0) Prerequisite:
303f.

A continuation of Course 303f. Mr. Norman.

303h. Radio Writing. Spring. 2(2-0) Prerequisite:
303g.

A continuation of Course 303g. Mr. Norman.

1944 to Present

The 303f,g,h, series was reorganized for the 1944-45 academic year. A description in the college Catalogue read:

306. (formerly 303f) Radio News Writing. Fall,
Summer. 2(2-0) Prerequisite: 314.

Principles and practice in writing news for radio broadcast. Writing announcements, conversations, and short discussions.
Mr. Kuykendall.

307. (formerly 303g.) Radio Continuity
Writing. Winter, Summer. 2(2-0)
Prerequisite: Junior standing.

Readings and practice in preparation
of scripts for broadcast. Mr. Kuykendall.

308. (formerly 303h.) Radio Advertising.
Spring, Summer. 2(2-0) Prerequisite: 305.

Preparation of radio advertisements and
radio advertising shows. Mr. Kuykendall.

Radio Courses -- Speech Department
1938 -- 1939

All other radio classes were started when the Speech department was organized at the beginning of the 1938 college year. Dr. Donald Hayworth, head of the new department, stated that there were four basic objectives in teaching radio education.

1. To develop wider, more intelligent and more satisfying appreciation of radio as a medium of communication and art.
2. To develop skills on the part of those who might use radio in connection with various activities such as Extension work and community service.
3. To develop skills which might be used by those who take courses for leisure time activities.
4. To prepare people for full time work in radio but not to include the technical aspects of radio or music work.²⁶

The new radio courses in the Speech department were described in the college Catalogue:

381. Radio Speaking. Any Term. 5(5-0)
Prerequisite: 101 or 261, preferably the latter. Mr. Hayworth

26. Hayworth, D. L., interview, April 15, 1947.

382a. Radio Announcing. Fall. 3(3-0)
Prerequisite: 381.

For credit courses 382b and 382c
must also be taken with a passing
grade. Mr. Hayworth.

382b. Continuation of Course 382a.
Winter. 3(3-0) Prerequisite: 382a

For credit course 382c must also be
taken with a passing grade. Mr. Hayworth.

382c. Continuation of Course 382b. Spring.
3(3-0) Prerequisite: 382b. Mr. Hayworth.

385. Radio Dramatic Production. Spring.
3(3-0) Prerequisite: 381. Mr. Hayworth.

The three announcing courses' broad topics were news, music, and
commercials with one stressed during each term's work.

1939

One change in the radio courses offered was made and recorded in the
official college catalogue.

381. Radio Speaking. Any Term. 4(4-0)
Prerequisite: 101 or 261, preferably
the latter. Mr. Hayworth.

Dr. Hayworth stated the reduction in hours was made because it was
felt that the work could be accomplished with four class meetings per
week.

1940-1942

Two new changes were made at the start of the 1940-1941 college year:

385a. Radio Dramatic Production. Fall.
3(3-0) Prerequisite: 381. For credit
385b and c must also be taken with
passing grades.

A comprehensive study of problems involved
in the production of dramatic programs,
including radio acting, direction, and the
mechanics of production. Mr. Barnhart.

the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is expected to reach 1.7 billion by the year 2015. The number of illiterate people in the world is expected to reach 1.7 billion by the year 2015.

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1010 spectrophotometer. The concentration of chlorophylls was expressed as $\mu\text{g mL}^{-1}$ of the sample.

• *Staphylococcus aureus* (100%)

[illegible]

Figure 1

• • •

385b. Continuation of Course 385a. Winter.
3(3-0) Prerequisite: 385a. For credit,
385c must also be taken with a passing
grade. Mr. Barnhart.

385c. Continuation of Course 385b. Spring.
3(3-0) Prerequisite: 385b. Mr. Barnhart.

Graduation Course

585. Advanced Radio Production. 3(3-0)
Mr. Barnhart.

1942-1943

The catalogue recorded new courses that were added to the radio
curriculum.

486a. Radio Practices. Fall. Offered in
alternate years. Given in 1942-43.
3(3-0) Prerequisite: Credit in one
radio course carrying graduate credit.
For credit, 486b and c must also be
taken with passing grades.

Federal regulations, community service,
program building, auditioning, radio
publications, and problems of station
management and public relations.
Mr. Barnhart.

486b. Continuation of Course 486a. Winter.
3(3-0) Prerequisite: 486a. For credit,
486c must also be taken with a passing
grade. Mr. Barnhart.

486c. Continuation of Course 486b. Spring.
3(3-0) Prerequisite: 486b. Mr. Barnhart.

487. Radio Workshop. Summer. 5 credits

488a. Radio Techniques. Fall. Offered in
alternate years. Not given in 1942-43.
3(3-0) Prerequisite: Credits in one
radio course carrying graduate credit.
For credit, 488b must also be taken with
a passing grade.

The use of radio equipment, including the
cutting of transcriptions, placement of
microphones, acoustics of studios, the
running of sound tables, arrangement of
orchestras and control board operation.

488b. Continuation of Course 488a. Winter.
3(3-0) Prerequisite: 488a.

1943 to Present

At the start of the 1943-1944 academic year, Radio Practices was offered every year and Radio Techniques, which had never been taught, was officially suspended. Radio Practices was also given as undergraduate credit for advanced radio studios. A revision in beginning classes is shown in the catalogue.

281. (formerly 381) Introduction to Radio.
Fall, Winter, Spring, Summer. 4(4-0).

A survey course designed as an introduction to the field of radio speaking and to the production of programs. Mr. Callaway, Mr. McGraw, Staff.

283. Advanced Radio Speaking. Any Quarter.
3(3-0). Prerequisite: 281.

A continuation of the study of radio speaking with more intensive training in microphone technique, studio procedures, and all types of radio speech programs.

ENROLLMENT

Student enrollment in Speech department radio classes had shown a steady increase. In 1938 the entire enrollment for radio courses was 152. During the academic year 1945-1946, the first full year after the war ended, 419 students took radio classes in the department. The beginning radio course during 1938-1939, 381, showed a total enrollment of 72. The beginning course in the department for radio during the year of 1945-1946, 281, had a yearly total of 172. The advanced courses showed a similar increase in student enrollment.

PERSONNEL

Dr. Donald Hayworth, head of the Speech department, taught all department radio courses during the academic year 1938-1939. Dr. Hayworth came to Michigan State from Akron University where he had been head of the Speech

department for eight years. Dr. Hayworth had taught radio classes as early as 1929 at the University of Akron. In 1942 Dr. Hayworth was granted a leave of absence in order to become national head of the Victory Speakers Bureau in the Office of Civilian Defense, Washington, D. C. During the war he participated in such national defense activities as the Victory Speakers Bureau, the American Red Cross Speakers Bureau, and Conservation Division of the Department of Interior. He was reinstated at Michigan State College January 1, 1946 as professor of Speech in charge of Conversational Speaking classes.

Mr. L. D. Barnhart was hired as an Assistant Professor in 1939 to teach radio and general speech. Before coming to Michigan State College, Mr. Barnhart was a production director at the Chicago Division of the National Broadcasting Company. In this capacity he directed the network shows "Vic and Sade", "Girl Alone", and "Lights Out". Professor Barnhart was for 15 years a teacher and director of dramatics, and director of the Shaker Village Players of Cleveland and the University Civic Theater at Toledo. Professor Barnhart resigned in 1942 to accept a position as program director at KXEL, 50,000 watt radio station in Waterloo, Iowa.

Mr. Joe A. Callaway was hired in September, 1942 as an Assistant Professor of Speech and Dramatics to teach radio courses. Professor Callaway received his Bachelor of Fine Arts degree from the University of Oklahoma, his Master of Fine Arts degree from the Goodman Memorial Theater of Chicago, and has done graduate work at Northwestern University and the University of Southern California.

Prior to his employment at Michigan State, Mr. Callaway had 12 years of radio and theater experience. On the radio he has directed, acted and announced, network programs, and announced on local stations. In the theater, Professor Callaway has directed a professional stock company at

Miami Beach, Florida, the Community Theater, San Diego, California, and the Summer Theater, Marquette, Michigan. In 1947 Professor Callaway received an award from the University of Oklahoma as its outstanding alumnus in the field of radio education.

Mr. Walter McGraw was hired September, 1942 as an instructor to teach beginning radio classes. Mr. McGraw received his Bachelor of Arts and Master of Arts degrees from Wayne University, Detroit, Michigan. While gaining his formal education, Mr. McGraw received professional experience on radio stations WXYZ and WJR. He resigned April 30, 1945 to join the production department of the National Broadcasting Company in New York City.

Mr. James D. Davis was hired as the rank of Assistant Professor, September, 1946 to teach radio classes. Professor Davis received his Bachelor of Arts degree from the University of New Mexico and his Master of Arts degree from the University of Southern California. He has done work toward the Ph. D degree at the University of Southern California, Northwestern University and the University of Wisconsin. He has had teaching experience in high schools and junior colleges and while on the west coast worked with Columbia Broadcasting System educational officials on school broadcasts.

Mr. Ben Wampler, design technician in the department, also teaches radio courses. He was hired in September, 1946. Mr. Wampler had had professional experience on local stations before coming to Michigan State College.

Graduate Assistants have been given the responsibility of teaching beginning radio classes. These Graduate Assistants have been Ray Abel, Loren Nus, and Noble Richardson.

On March 26, 1946, the department's official name was changed to the Department of Speech, Dramatics and Radio. Professor Callaway's title was changed to Associate Professor in charge of Radio Education. Professor Paul D. Bagwell, Acting head of the department, emphasized that the basic policy of the school is to hire personnel "who have a practical background in addition to sufficient academic training."

Facilities

When the Speech Department was organized in 1938, facilities for teaching radio classes were on the second floor of the Wood Shop building. A regular classroom was partitioned off at one end and a studio eight feet wide and sixteen feet long was provided. A glass partition faced the students so they could see the activities in the studio as well as hear programs over the loud-speaker arrangement. The studio was deadened by draperies. Two R. C. A. microphones, a small make-shift turn table, and R. C. A. console were the extent of the technical equipment for classroom purposes. Seating capacity for the classroom was 25 students. In 1940, the Auditorium building was completed and the Speech and Dramatics department moved into its new quarters. Especially designed facilities were provided for radio classes. Two modern studios were equipped with three R. C. A. microphones, sound effect material, manual and recorded, two turn tables, transcription facilities and a console. A glass partition facing the classroom was installed for the benefit of 351 students who could be seated there. A direct telephone line was installed to WKAR so that actual programs over the air could be broadcast from the classroom studio.

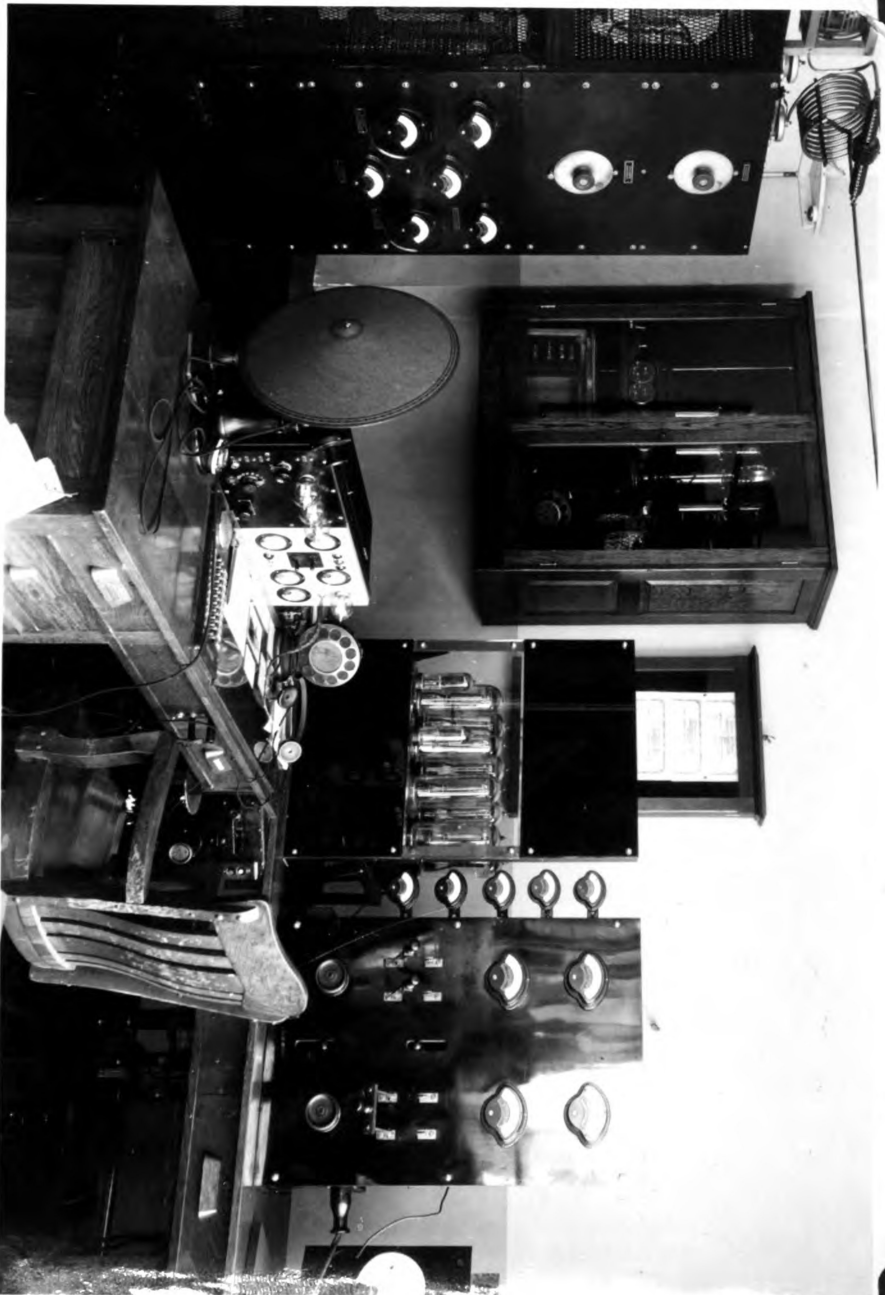
Activities

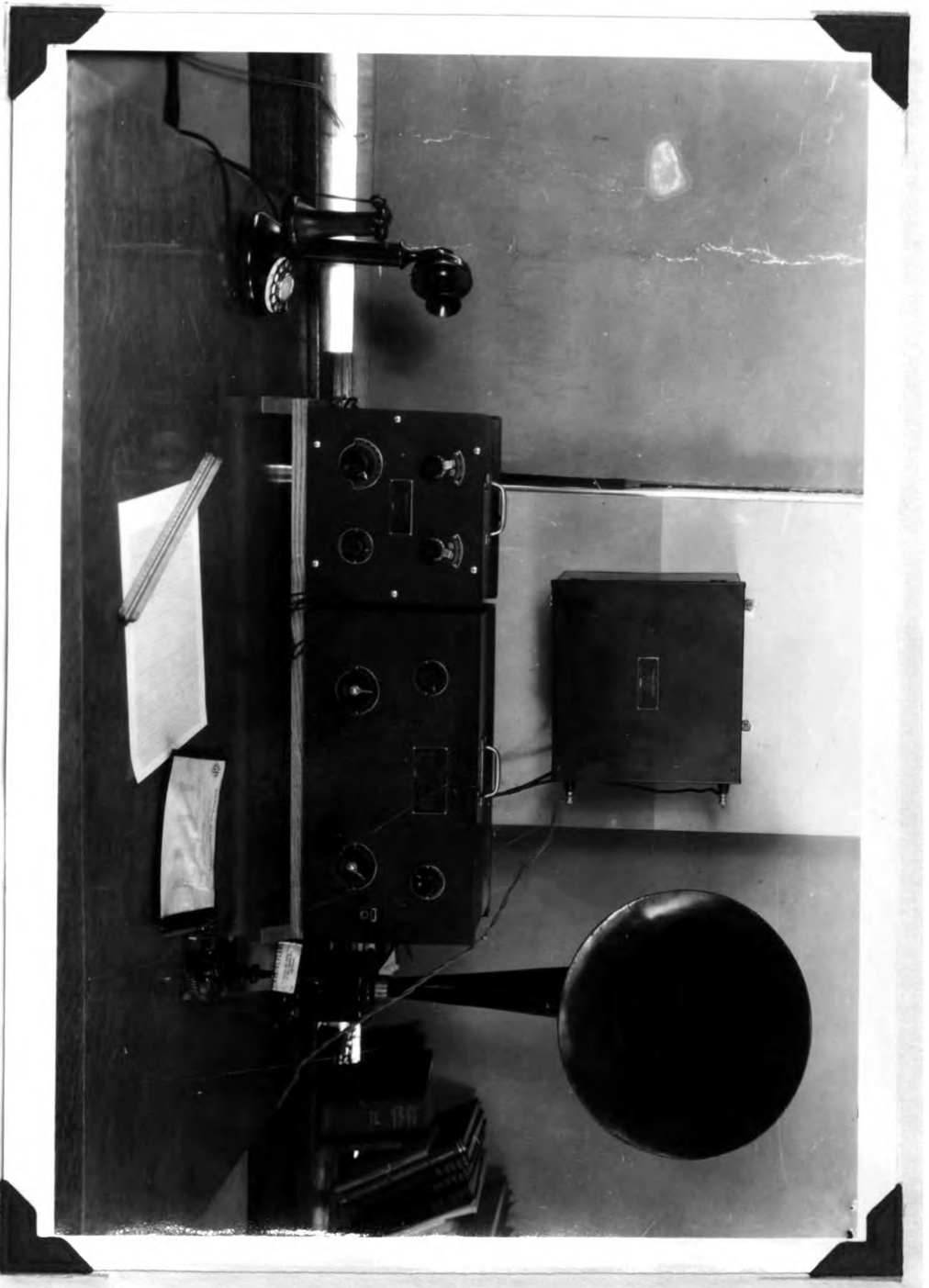
Activities in the radio field have been many and varied. In addition

to regular dramatic programs over WKAR, and classroom shows, various dramatic types, news, and special events, special programs were put on over commercial Michigan stations with radio students participating. Field trips to stations in Michigan were taken and prominent radio personalities were invited to address the classes. Advanced students have done research projects for national magazines on listening tastes on campus, and commercial likes and dislikes of students. Master's theses are given in radio education with work being done in both the commercial and educational phases of the field. Professor Joe A. Callaway stated that "several of our theses have made a definite contribution to radio education. Miss Ruth Nadal's thesis, for instance, has been useful to educators since it showed to what extent radio was being used in the schools of the state". A local chapter of the national radio honorary, Alpha Epsilon Rho, was established at Michigan State College in 1942. It sponsors dramatic programs over the air and encourages excellence of broadcasting by its members and other radio students. Radio guilds and student workshops have also been organized for beginning students. Although shows are produced over WKAR by the Speech, Dramatics, and Radio department, it should be noted here that no connection exists between the two departments other than the usual liason between individual departments. Students in radio education take a course of study which stresses liberal arts background in addition to the specific radio courses which at the time this thesis was written, numbered forty-seven hours. In 1945 Professor Callaway established the Annual Michigan State College Radio conference where problems in educational and commercial radio broadcasting are discussed by representatives from schools and stations throughout the state of Michigan.

A P P E N D I X

Equipment owned by WKAR in 1927. Transmitter
given to WKAR by WWT Detroit. Picture taken
in Power House February 17, 1927.

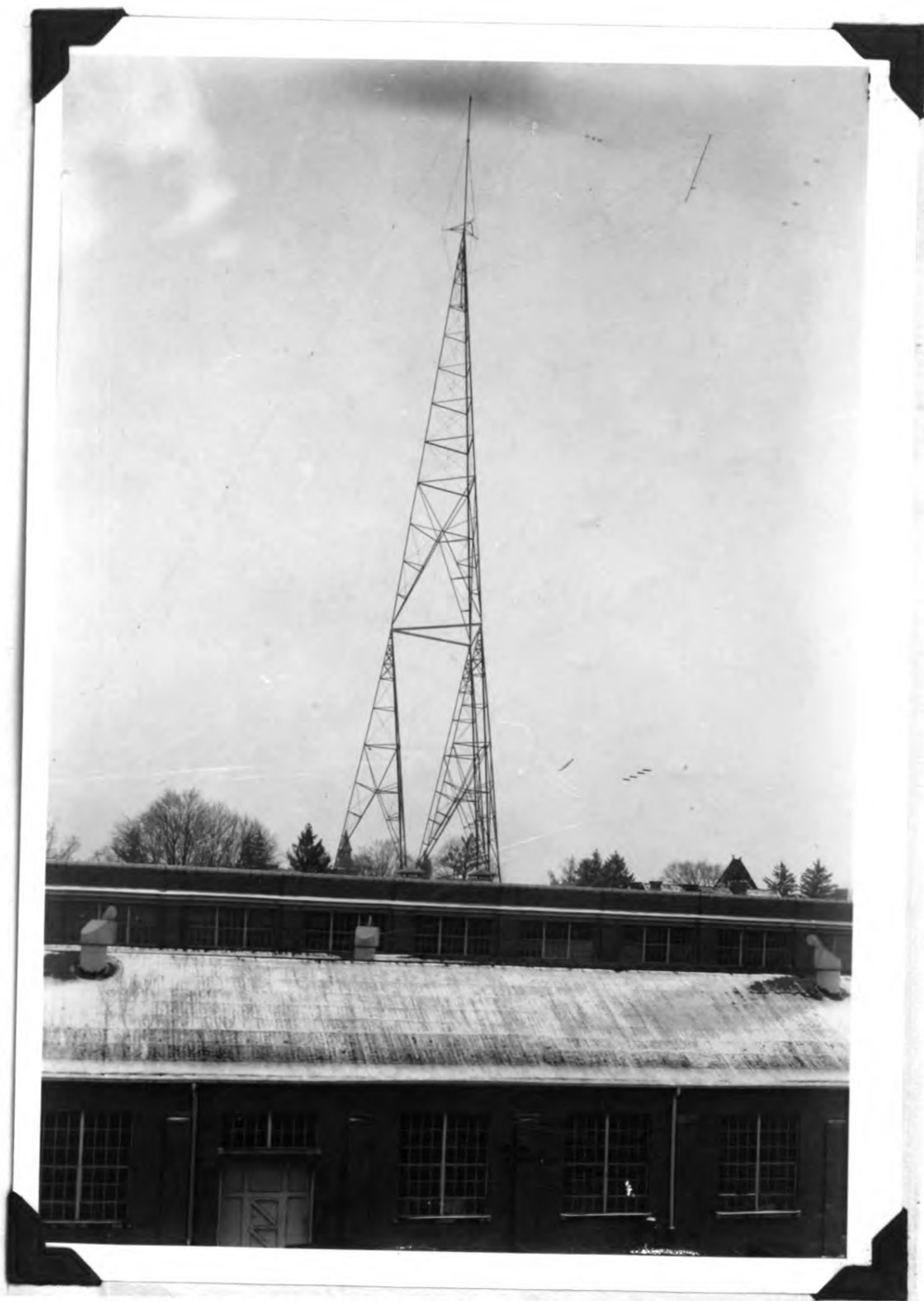




Equipment used for monitoring purposes by
WPAAR. Picture taken in Power House Feb-
ruary 14, 1927.



Picture of equipment used by Michigan State
College amateur radio club for its station,
W8BMR. Equipment located in Power House.
Picture taken February 14, 1927.



February 14, 1927 this full-length picture of WKAR antenna, located on top of Wood Shop, was taken. Note flat top extension which was connected to water tower.



Equipment owned by WKAR rebuilt from
equipment owned by station from 1935
to 1934. Picture taken in January,
1934 in lower house.



WKAR transmitter of 1934. Designed by Norris Grover, Chief Engineer of WKAR, and built by Western Electric Corporation. Picture taken in Power House January, 1934.

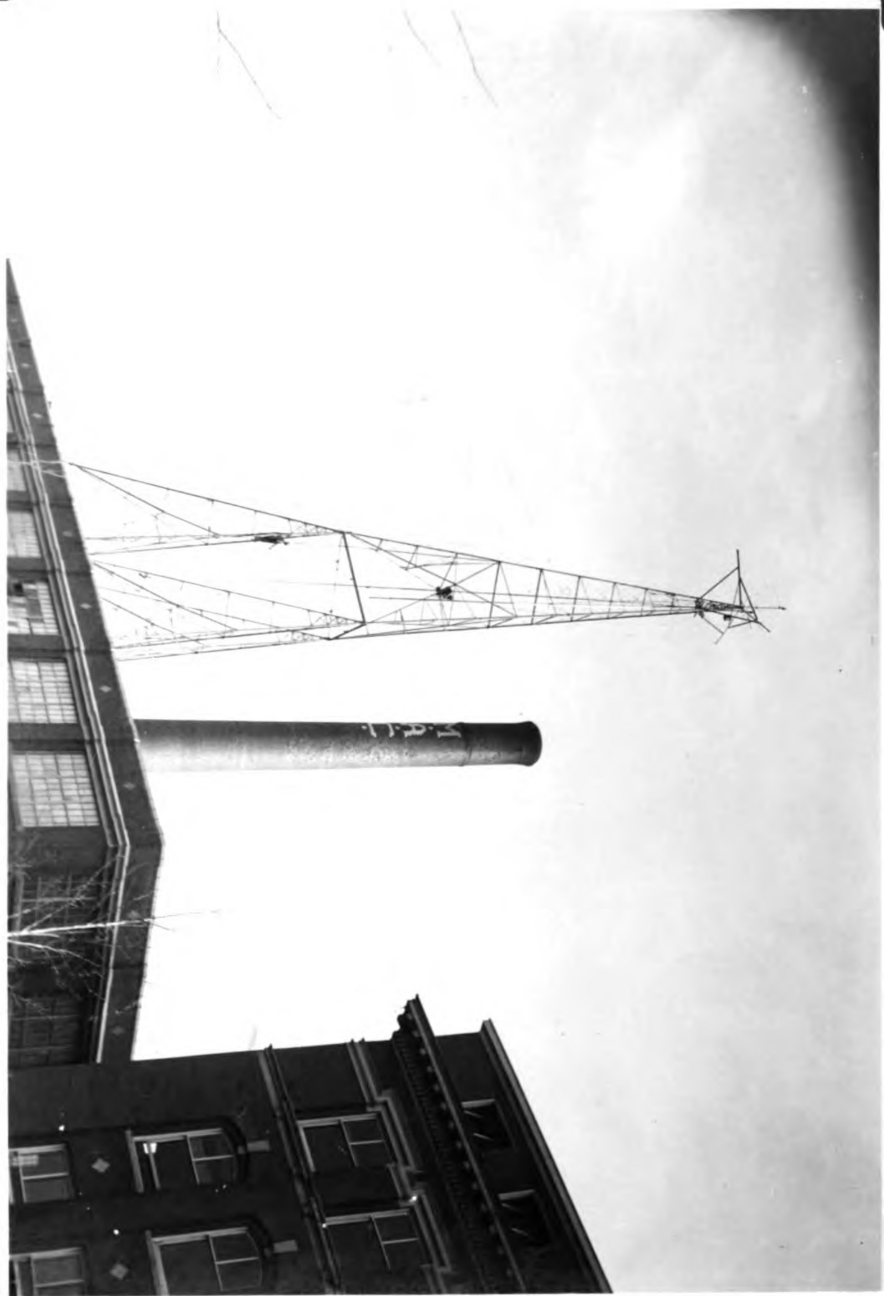


Picture of antenna tuning house located
on top Wood Shop, October 29, 1935.



One tower leg insulator October 29,
1935. Entire tower built by WKAR
staff.

Wavy antenna located on the Food Shop on
the Michigan State College Campus. Picture
taken October 29, 1935.





Donald Hittle, student announcer of WKAR
interviewing a returning alumnus on Alumni
Day, 1935. Picture taken in Union building.

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Interviews

Paul D. Bagwell, Acting Head of Speech, Dramatics, and Radio department,
Michigan State College.

Joe A. Callaway, Associate Professor of Speech, Dramatics, and Radio
department, Michigan State College.

Donald L. Hayworth, Professor, Speech, Dramatics, and Radio department,
Michigan State College.

L. C. Emmons, Dean, School of Science and Arts, Michigan State College.

R. J. Baldwin, Head, Extension Division, Michigan State College.

K. H. McDonel, Secretary, Michigan State College.

B. K. Osborn, Associate Professor, Electrical Engineering department.
Michigan State College.

R. J. Coleman, Head, Radio department, Michigan State College.

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Lynn Towsley, Engineer, WKAR, Michigan State College.

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BIOGRAPHY

The author was born in Grand Rapids, Michigan, July 3, 1923.

He took his public school training in Lansing, Michigan, graduating from Lansing Eastern High School in June, 1941. The following September he matriculated at Michigan State College, where four years later he received his Bachelor of Arts degree in the Department of Speech and Dramatics.

During his undergraduate days, the author participated in all phases of the speech and dramatic program, winning honors in drama, debate, oratory, extemporaneous speaking, round table discussion, and radio, which was his major field of endeavor. He was a member of three honorary fraternities, Alpha Epsilon Rho, national radio honorary; Pi Kappa Delta, national forensics honorary; and Theta Alpha Phi, national dramatics honorary. The author worked on the college radio station, WKAR, for three years during his undergraduate days, on a part-time basis. He was an announcer and did considerable work with news and dramatics. After graduation, June, 1945, he accepted a position with a 5000 watt station affiliated with the Columbia Broadcasting System, WKZO, in Kalamazoo. During the fifteen months the author was with WKZO, he was a news-editor in charge of all news activities. The author resigned from WKZO during August, 1947 and enrolled in the Graduate School of Michigan State College in September, 1947. He received his Master of Arts degree in the field of radio education in June, 1947. During this period, from September, 1946 to June, 1947, the author was assistant production supervisor at station WKAR on a part-time basis.

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