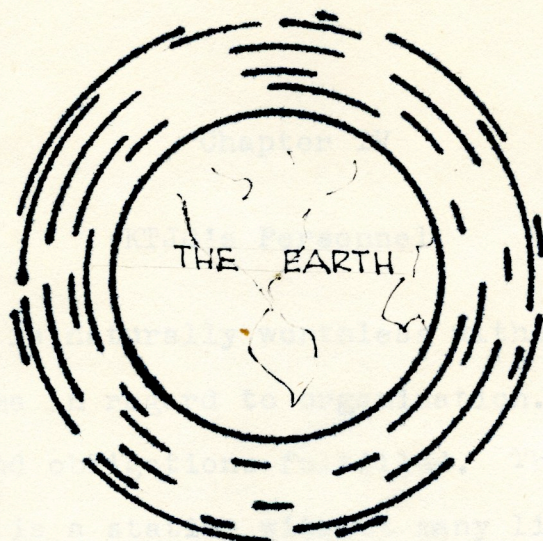


(a) ELECTROMAGNETIC

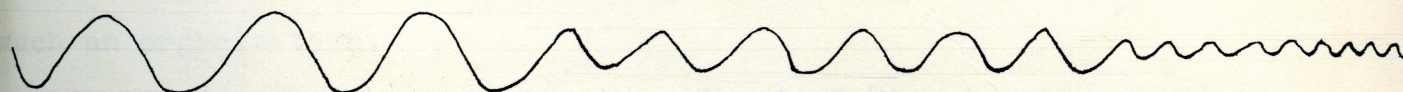
WAVES



TRAVELING AT 186,000 MI./SEC.

(b)

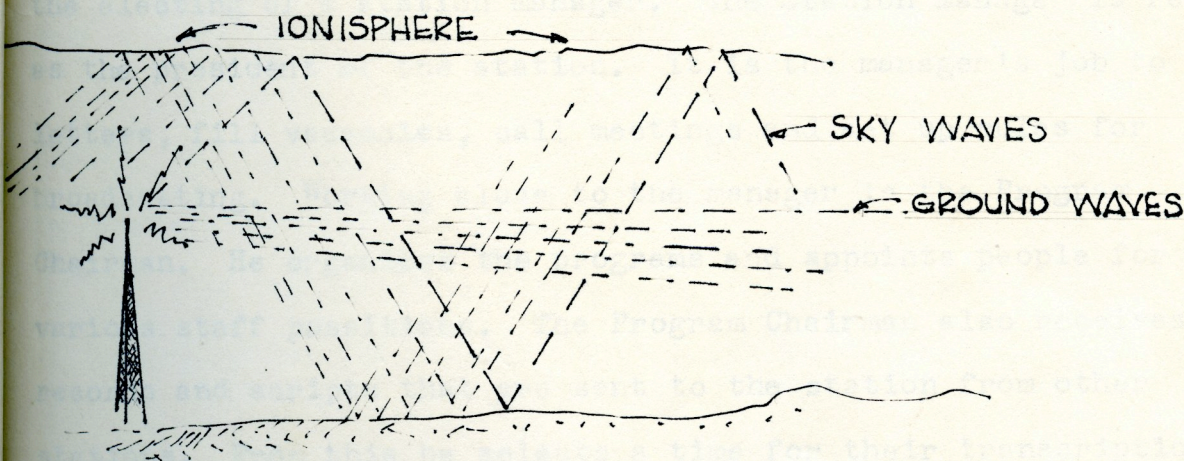
HOW WAVES TRAVEL



RADIO WAVES

COLOR WAVES

X RAY WAVES





## Chapter IV

### KTJO's Personnel

A station is naturally worthless without personnel, and we can say the same in regard to organization. There must be duties assigned and obligations fulfilled. The station without good organization is a station without many listeners. It is necessary, therefore, that every position is filled by a person well capable of doing a good job. Yet capability is not all; there must be interest, enthusiasm and zeal. KTJO strives for such an organization.

Ruling over the station is a Board of Directors composed of five members, three of which are students and two, faculty advisors. They make various important decisions one of which is the electing of a station manager. The Station Manager is regarded as the president of the station. It is the manager's job to write letters, fill vacancies, call meetings and set up rules for broadcasting. Working close to the manager is the Program Chairman. He organizes the programs and appoints people for various staff positions. The Program Chairman also receives the records and scripts that are sent to the station from other stations. From this he selects a time for their transcription. He is responsible for continuity and must appoint a person or make the various arrangements himself. The Chief Announcer receives his instructions from the Program Chairman and in turn appoints different station announcers to their posts and advises,



corrects, hires and fires these.

The Chief Engineer is called the Technical Director and is in charge of the selecting and appointing of engineers as well as seeing that the instruments are functioning properly. He is the "fix-it" man.

The Special Events Director takes tape recordings of all the special events that would be of interest to KTJO listeners.

The Sportscaster, under the Special Events Director is chosen by the faculty advisors and has the important job of sportscasting the football and basketball games.

The Librarian is in full charge of the record library. She keeps the records in proper order along with two catalog systems. She also files the new records as they come in and keeps a bulletin board up to date with the latest recording news.

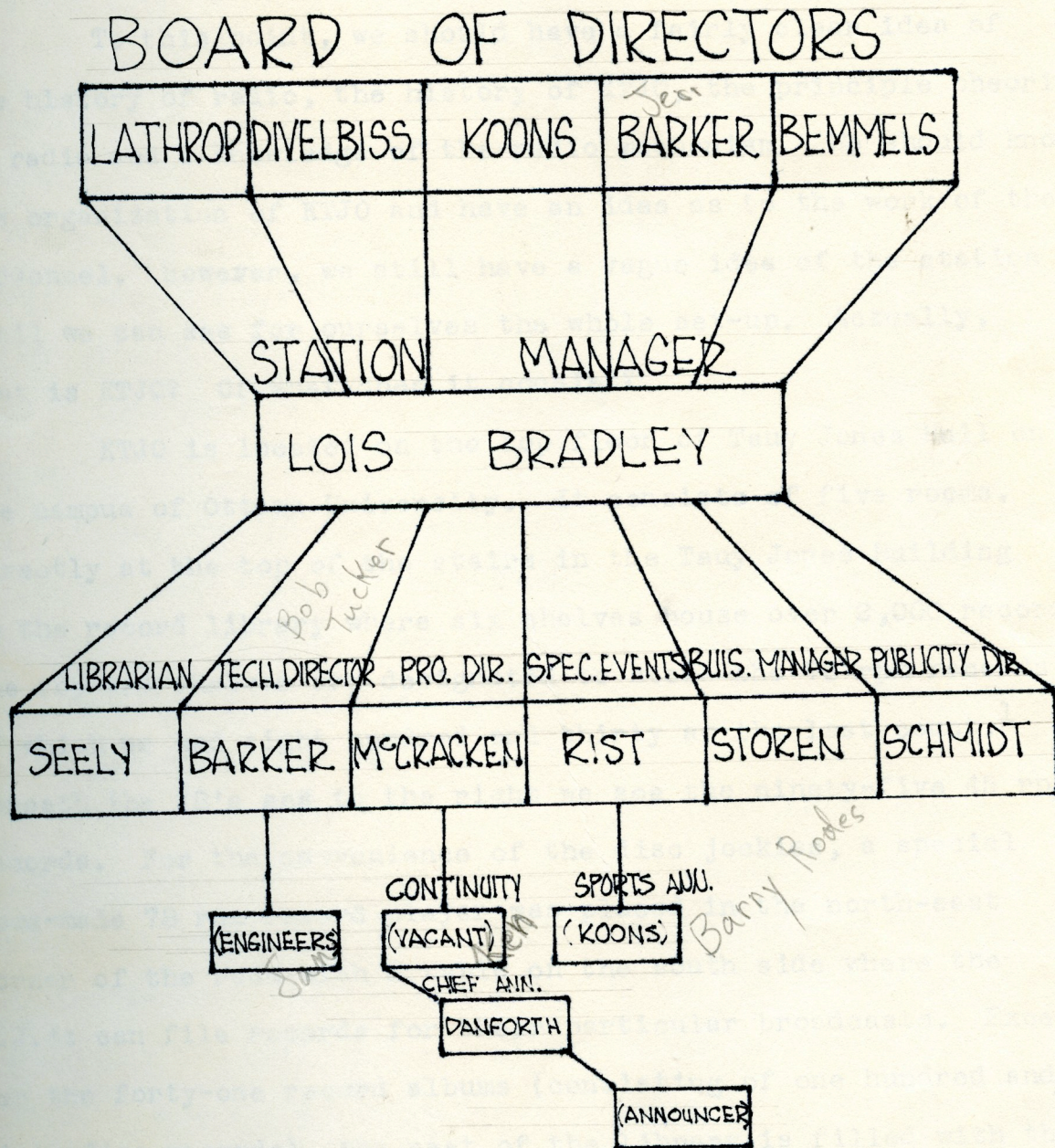
The Publicity Director puts articles in the paper, news on the school bulletin board and posters in convenient places when something special is to be on the air.

The Business Manager is responsible for getting sponsors for the ball games and any other outside business that needs to be checked from time to time.

The station this year has over forty constituents working together to produce first-class performance.



# TJO'S ORGANIZATION





## Chapter V

### KTJO on Tour

To this point, we should have a fairly clear idea of the history of radio, the history of KTJO, the principle theories of radio and a knowledge of the radio mechanism. We should know the organization of KTJO and have an idea as to the work of the personnel. However, we still have a vague idea of the station until we can see for ourselves the whole set-up. Actually, what is KTJO? Of what does it consist?

KTJO is located on the top floor of Taue Jones Hall on the campus of Ottawa University. It consists of five rooms. Directly at the top of the stairs in the Taue Jones Building is the record library where six shelves house over 2,000 records. The top two shelves are designated to store the 78 rpm records of which we had eight hundred and thirty at the last count.<sup>1</sup> Beneath the 78's and to the right we see the ninety-five 45 rpm records. For the convenience of the disc jockies, a special home-made 78 rpm record player was placed in the north-east corner of the room with a table on the south side where the D.J.'s can file records for their particular broadcasts. Except for the forty-one record albums (consisting of one hundred and sixty-five records), the rest of the library is filled with the Program Chairman's materials. Recordings of The Layman's Hour,

<sup>1</sup>Count made by the librarian on December 9, 1954



Navy Show, Let There be Light, Marine Show, Army Show, and several others are neatly filed in a manner in which they can easily be found. In the filing cabinet on the north west side is all the pertinent station literature along with station bulletins, news articles, etc.

From the library we go through a doorway on the right and then turn to the left and follow a short corridor to the Observation Room. There we see four windows built on a slant so that the spectators may glance through into the main studio and Control Room. A small speaker is set near the ceiling and may be turned on by the engineer whenever requested. The Observation Room is separated by sound proofing material between it and the studio.

Now, tracing our steps back into the corridor and down to the doorway that we came through, we notice directly opposite from that door another door. So we open it up and walk into a room. This room is entirely different than other rooms. Even the ceiling is different.

This is Studio "A" and has been acoustically treated to cause the best sound vibrations to enter one of two microphones that may be set in the room. A piano is on the east side with a heater behind it and to the left. Sound effect instruments are against the wall on the east and on the south below the Control Room's adjoining window is a table with chairs set in position for a newscast program. A speaker is in the southwest corner of the room and on the north we see chairs and a speaker's stand. The floor we find is a cork tile floor and was made



especially to absorb sound. It is three-sixteenths of an inch thick. The walls are covered with a substance called saw-tooth which is a good absorber of sound. We notice the windows of the room are on a slant and the reason for this is that they will reflect the sound down to the floor and also reduce the glare. Along the east side of the room are two large curtains that when drawn absorb sound very nicely. On the ceiling we see a substance called acoustic cellotex and understand that it is five-eighths of an inch thick and cemented into the plaster above in order to absorb the sound that would otherwise echo back into the microphone and cause a displeasing "feed back". Now we advance into the room adjoining studio "A" on the southeast section. This room is known as studio "B" or the Announcers's Room. Here a desk is set facing the control panel where a big window reveals most of the Control Room. A chair is behind the desk and a microphone is on a rubber pad and sets on the desk. A little bulb incasing a small light is at the window seal and whenever the light is turned on, at the same time the microphone goes on. The announcer keeps his sign on, sign off, safety bulletins and continuity litany in the desk drawer.

We go from a southwest exit into the Control Room. Here we see a number of things divided into three main divisions. We see that to the right is a power unit and above that a monitoring set and above that the patch board. We continue to look up and see the A.M. transmitter extending to the ceiling. In the center of the room is the console with several levers, knobs, etc. We look closely and see that four microphone inputs are joined



into the console and with four turn tables there is a volume unit and a power switch for each. A meter at the center tells the engineer how much impression the sound is making on the console. We could spend a long time looking over the console but find our time is quickly drawing to a close and we must advance.

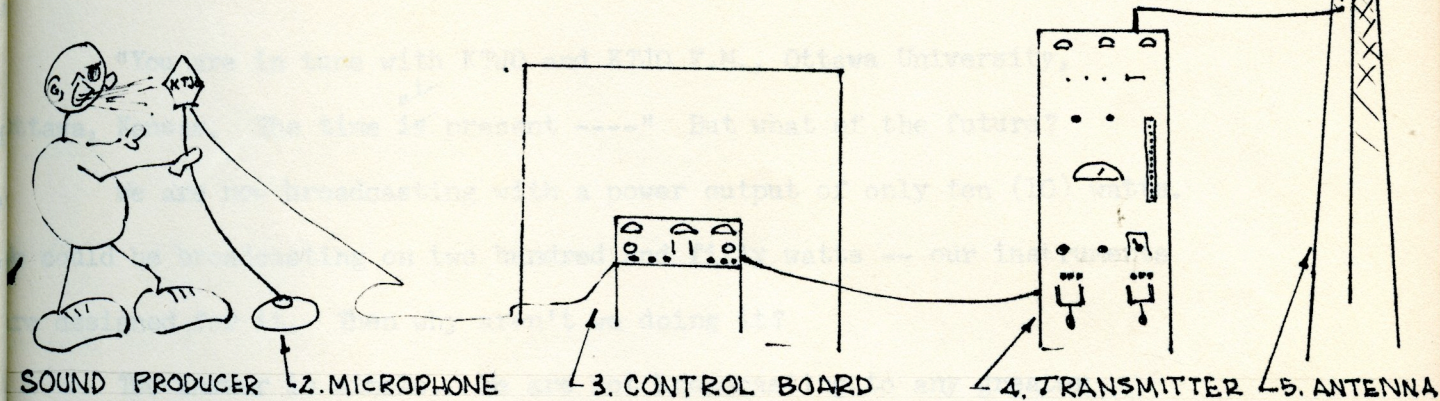
Beneath the console the chime records are stored where they can be selected and put over the loud speaker channel on the roof after the circuit is completed on the patch board and the turn table is patched properly.

The theme records are kept on the left and behind the console in a special record holder. The F.M. transmitter is near the console and on the left. It is a large blue instrument, capable of putting out two hundred and fifty watts of electricity.

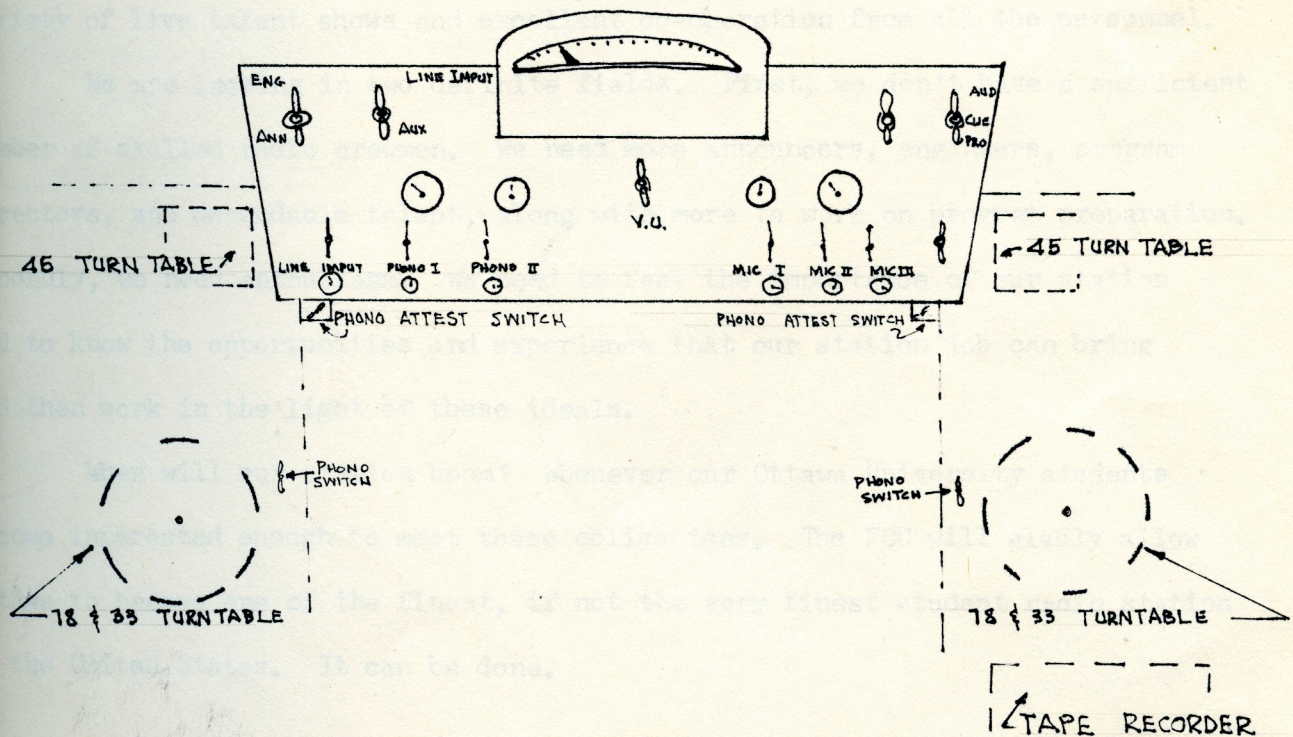
We understand that the F.M. transmitter was bought for \$1500 and the other expense of the station amounted to near \$4000.



# THE FIVE ESSENTIALS FOR A BROADCASTING STATION



## KTJO'S CONSOLE





## Chapter VI

### A Glance at the Future

"You are in tune with KTJO and KTJO F.M., Ottawa University, Ottawa, Kansas. The time <sup>is</sup> present ----" But what of the future?

We are now broadcasting with a power output of only ten (10) watts. We could be broadcasting on two hundred and fifty watts -- our instruments are designed for it. Then why aren't we doing it?

The answer is simple. We are not broadcasting to any greater degree because we simply are not permitted to by the FCC.

What must be done to cause the FCC to authorize us more power? This answer is not so simple. It requires work! We must produce superb programs with precise engineering and smooth announcing. We must have good music, a variety of live talent shows and excellent co-operation from all the personnel.

We are lacking in two definite fields. First, we don't have a sufficient number of skilled radio crewmen. We need more announcers, engineers, program directors, and dependable talent, along with more to work on program preparation. Secondly, we need enthusiasm! We need to feel the importance of our station and to know the opportunities and experience that our station job can bring and then work in the light of these ideals.

When will our station boom? Whenever our Ottawa University students become interested enough to meet these obligations. The FCC will gladly allow Ottawa to become one of the finest, if not the very finest student radio station in the United States. It can be done.



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