To the Graduate Council:

I am submitting herewith a thesis written by Elaine Kelsey Wiedemann entitled "Characteristics and Sources of Broadcast Media Available to County Extension Agents in Tennessee." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Extension.

Cecil E. Carter, Jr., Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor
Graduate Studies and Research

Ag-VetMed
Thesis
78
.W5395
cop. 2

CHARACTERISTICS AND SOURCES OF BROADCAST MEDIA AVAILABLE TO COUNTY EXTENSION AGENTS IN TENNESSEE

A Thesis

Presented for the

Master of Science

Degree

The University of Tennesseee, Knoxville

Elaine Kelsey Wiedemann

December 1978

1373290

ACKNOWLEDGMENTS

The author wishes to express sincere appreciation to her major professor, Dr. Cecil Carter, Jr., for his assistance, guidance and encouragement in the writing of this thesis. Appreciation is also extended to Dr. Robert S. Dotson and Mr. Alvin C. Blake, members of the writer's graudate committee, for their assistance and helpful suggestions.

To Mr. David Bower and Mr. Mike Knight for their guidance in the author's understanding and application of the engineering and technical aspects involved in the field of broadcasting.

A special acknowledgment to Mr. Robert D. O'Neil, whose gentle support and continued encouragement helped in my completion of this study.

ABSTRACT

The purpose of this study was to secure information to determine what mass media broadcast outlets were available to Extension personnel in their respective counties for the use of distributing agriculture information in an educational manner. The study was interested in determining what radio, television and cable systems were available within the counties and how Extension personnel are utilizing this media source.

The study reviewed the Federal Communication Commissions classifications for radio stations and identified the 245 commercial licensed broadcast AM and FM stations in Tennessee according to advertising market areas, counties and Extension districts.

Currently there are 26 commercial and noncommercial broadcast television stations in Tennessee. The study identified the stations; their location by market area, county and Extension district; and discussed current agriculture programming used by the stations.

Cable television systems are available in 66 market areas. The study reviewed the cable system, their location and identified those systems that could possibly be used by Extension personnel for local programming.

Major findings of the study were:

1. There are 245 broadcast radio stations--157 AM and 88 FM--in the state that are licensed for commercial purposes. The FCC has classified the AM stations according to: Clear Channel Class I; Class II, Clear Channel Stations; Regional Channels

Classes III-A and III-B; Class IV, Local Channel; and Class I and Class II Clear Channels. The 88 FM stations are divided according to Class A, B and C.

2. There are 15 counties in Tennessee that do not have a radio station.
3. Eighty-two of the broadcast stations identify with a major network for news, syndicated programming and sports.
4. The University of Tennessee Institute of Agriculture Communications Department supplies the commercial broadcast radio stations across the state with a variety of prepared packaged agriculture program materials which collectively represents 230 weekly broadcast programs.
6. Extension personnel in the counties provide the broadcast stations with 142 weekly programs ranging in time from short spots to 30-minute programs.
7. The Tennessee Radio Network and The Tennessee Agri Net supply those subscribing broadcast stations agriculture information, hourly, on a daily basis.
8. There are 15 market areas that do not use any form of prepared packaged material from the University of Tennessee furthermore, there are 17 markets that do not carry any type of county Extension program.
9. Tennessee has been allocated by the FCC a total of 39 broadcast television stations of which 26 are currently in operation. Eighteen of the television stations are commercial and eight are classed as noncommercial/educational.

10. Ten broadcast television stations use the 30-minute agriculture video program prepared by the University of Tennessee on a weekly basis. Extension personnel in two counties do regularly a weekly agriculture program for their commercial stations.
11. Tennessee has 66 cable television systems concentrated within 49 counties.
12. Sixty-three of the cable television systems have been allocated by the FCC 12 channels for network programming, local programming and special programming.
13. Fifty-eight of the cable systems have available channels for use by the community for local origination programming.
14. Video production equipment that is owned and maintained by an individual cable television system is limited. A majority of the cable stations do have one fixed camera that automatically scans the weather, news, sports and community announcements.
15. There are nine cable stations that are doing local programming for their communities but on a limited basis.
16. Thirteen counties in Tennessee do not have any form of electronic broadcast media outlet; 28 counties list only one media source; 46 counties have two sources; and 8 counties have available all three--radio, television and cable systems--electronic broadcast media outlets.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
	The Need for the Study	2
	Statement of the Problem	3
	Purpose of the Study	9
	Definitions of Terms	9
II.	REVIEW OF LITERATURE	15
	Research Related to the Mass Media Electronic Outlets As a Vital Tool in the Communication Process	17
	Research Related to Radio in the Communication Process	25
	Research Related to Television in the Communication Process	30
	Research Related to Cable Television Systems	35
	Mass Media Appeals	39
III.	METHODS AND PROCEDURE	41
	Population and Sample	41
	Source of Data	41
IV.	FINDINGS OF THE STUDY IN RESPECT TO RADIO STATIONS WITHIN THE STATE OF TENNESSEE	45
	Classification by FCC of Tennessee Radio Stations	45
	Tennessee AM and FM Radio Stations	55
	Agriculture Programs by Extension Personnel and Other Agencies	59
V.	FINDINGS OF THE STUDY IN REGARD TO THE TELEVISION AND CABLE TELEVISION SYSTEMS WITHIN TENNESSEE	71
	Classification by FCC of Tennessee Television Stations--Commercial and Noncommercial	72
	Tennessee Television Stations Using Agriculture Information Prepared by Extension Personnel	78
	Tennessee Cable Television System	82
	County Electronic Media Availability in Tennessee as Listed by Extension Districts	89
VI.	SUMMARY OF THE MAJOR FINDINGS, IMPLICATIONS AND RECOMMENDATIONS	93
	Purposes and Specific Objectives	93
	Method of Investigation	94
	Major Findings	95
	Implications and Recommendations	101
BIBLIOGRAPHY		103

CHAPTER PAGE

APPENDICES 107
APPENDIX A 108
APPENDIX B 137
APPENDIX C 144
APPENDIX D 154
APPENDIX E 169
VITA 172

LIST OF TABLES

TABLE		PAGE
I.	Divisions of Tennessee Radio Stations by FCC Classifications	47
II.	Tennessee AM Radio Stations Classifications According to the Federal Communications Commission	48
III.	Tennessee FM Radio Stations Classification According to the Federal Communications Commission	53
IV.	Tennessee Radio Stations Indicating Network Affiliation for News and Educational Programming	56
V.	Tennessee Radio Stations Indicating Program Format	58
VI.	Tennessee Radio Stations Indicating Time for Special Programming	60
VII.	Stations in the Five Extension Districts Using University Related Programs	62
VIII.	Stations in the Five Extension Districts Using County Extension Related Programs	65
IX.	Tennessee Stations Using Agriculture Programming from State Networks	67
X.	Tennessee Television Stations and Locations Approved by the FCC	74
XI.	Tennessee Television Stations in Operation--Commercial and Noncommercial	76
XII.	Tennessee Television Stations That are Currently Using the "Ag Science In Action" Program	79
XIII.	Tennessee Television Stations Using Agriculture Material Prepared by Extension Personnel	81
XIV.	Tennessee Cable Systems that have Channels and Video Equipment Available for Programming as Listed by Extension Districts	86
XV.	Tennessee Cable Television Stations that have Local Program Origination and the Type of In-House Equipment	88

TABLE PAGE

XVI. County Electronic Media Availability in Tennessee as Listed By Extension Districts 91

XVII. Listing of All Tennessee Radio Stations--AM and FM--By Market Areas 109

XVIII. Radio Stations in Tennessee That Have Some Agriculture Programming Scheduled 138

XIX. Tennessee Cable Television System--Location, Franchise Area, Coverage and Channel Allocation 145

XX. County Electronic Media Availability In Tennessee as Listed by County and District 155

CHAPTER I

INTRODUCTION

Congress in 1914 passed the Smith-Lever Act which established the Cooperative Extension Service in Agriculture and Home Economics. The purpose of Extension has been one of working with the people of the United States in order that they may be able to learn to think more critically and creatively and become better decision makers. This service is publicly supported, informal, out-of-school educational cooperative organization of the United States Department of Agriculture and the land grant university system in each state (41: 9)*

One consistent characteristic of the Cooperative Extension work since its beginning has been the continuing necessity to shift programs and methods to meet the ever-changing socio-economic conditions and demands. With the increased change in tempo of individual life styles based on technological advancements it is extremely important that extension personnel stay in tune with these advances in order to maintain good relations with their existing clientele.

The electronic broadcase media is just one example of the ever increasing fast pace changes that are being dealt with daily by individuals. The invention of the radio in 1896 by Gulielmo Marconi; Valdemar Poulsen's discovery of the principal of magnetic recording in 1898 and Vladimir Zworykin's development of electronic television in 1923 (15: 93, 118, 189)

---

*Numbers in parentheses refer to similarly numbered items in the Bibliography; those numbers after the colon refer to page numbers.

were just the beginning of the fast moving sophicated system of electronics that we call the mass media.

People rely on the mass media to keep them informed quickly and accurately. They consider the media a means of keeping up on news but also entertainment, new concepts and trends.

Hardly a person in the United States today does not have some form of electronic communications receiver in his/her own home. The 1970 U.S. Census estimated that 98 percent of all American homes had at least one television set and two AM-FM radios (26: 35). Television and radio are recognized as an integral part of our everyday life; therefore, they offer an excellent opportunity for extension personnel to reach large numbers of people, especially those audiences that are normally considered inaccessible.

I. THE NEED FOR THE STUDY

The original concept of the study was to isolate one area of the electronic media to determine its usefulness and usability by Extension personnel in their respective counties.

After surveying by telephone all cable television systems in the state of Tennessee, it was determined that this media form was not being utilized by individuals in the counties where it was available and furthermore it would be years before participating counties would accept cable television as a teaching tool. This hesitancy was enchanced by a Federal Communications Commission ruling in the Spring of 1978. The original law required that all cable systems provide and make available video taping equipment for programming and viewing on their licensed

public access origination stations, if they had 3,500 subscribers. The law was rescinded.

No study had been conducted to see what broadcast commercial and noncommercial stations were located in the 95 counties and what type of programming was potentially available for Extension.

Most counties in Tennessee have at least one broadcast radio station. A survey of all FCC listings, license renewals and the 1978 *Broadcasters Yearbook* revealed that Tennessee has 245 commercial broadcast radio stations. To date, no composite study has been completed to determine the type of station, its potential reach and audience or the use of agriculture and home economics information as listed by market areas and Extension districts.

To aid Extension agents in planning and conducting educational programs via the mass media, it was felt that factors relating to the availability and use of the media needed to be identified.

II. STATEMENT OF THE PROBLEM

Individuals learn about new agriculture technology, consumer updated information and the latest research methods from a variety of sources that include the Extension Service, the mass media, dealers and individuals who are recognized as opinion leaders.

It is generally accepted by studies conducted in the past that the mass media plays an important role in creating awareness, providing information and stimulating a need for more information. This is part of the process that eventually leads to the adoption of the recommended practice or a decision based thereupon.

Each of the mass media outlets, if properly utilized, can become a great aid to Extension personnel. In the area of radio, the Extension agent can determine how and what to discuss by simply taking into account the variables that surround the stations within their county. Items such as: (1) Is it an AM or FM station? (2) What is the basic program format? (3) What age audience is the station striving to attract? and (4) What time of the day is the program being aired? Once the Extension person has established his identity with the station, it is essential that he maintain a consistent program, one providing up-dated, timely, useful information.

Television

The average American viewer spends hours a day in front of the television set and finds it a relaxing, pleasant and now an integral part of his daily life pattern. The average viewer watches what happens to be on the broadcast station and gradually has come to depend a great deal on routine, daily viewing.

The American television viewer would like television to be more informative and educational but not at the expense of entertainment. Aside from the day's news and weather--which is watched regularly--he/she rarely uses the television as a deliberate source of information. The viewer is extremely unlikely to turn on a serious informative public affairs presentation and will normally change the channel if such a program is broadcast during his/her viewing schedule.

This in part reflects the present division between the various media. Television, among the home sources of mass communication, has

its greatest comparative advantage in the field of entertainment. According to the average viewer, newspapers presently provide more thorough reports of the important happenings on the local and national scene; radio is quicker with frequent, capsule summaries; and magazines best provide for limited, specialized interests. It is television that is turned to for relaxation and diversion. (30: 210)

The average American viewer in the average American home is a concept of convenience. He has no more than a high school education; an annual income of less then $8,000; and he accounts for over three quarters of all television homes; and a still higher percentage of the effective audience at any given time because he watches somewhat more often than those with higher social-economic standing. (30: 210).

In contrast, the non-average viewer who is higher-educated and in a higher income bracket is more selective of his viewing time, although he too turns to television principally for relaxation and entertainment. He is far less impressed with television and its programming (30: 210).

The more educated and informed the viewer, the more education and information he/she says television should provide to the point where this becomes the number one criticism or suggestion of the number one educational group. As a middle class, striving American, he/she more acutely feels the need to spend time usefully than his/her less ambitious counterparts; and his/her formal schooling has placed a high value on reading and serious study. This combination attaches more than a little uneasiness to the hours he spends being entertained without effort by materials he regards of little intrinsic worth. Time is considered his/her most valuable

resource. If he/she could only learn something--historical, political, scientific, cultural--it would justify this otherwise unproductive use of time.

In the case of television, as in the case of most issues that people are personally involved in, their attitudes, stereotypes, and reactions stem only in part from the actual nature of the "object." They also reflect the nature of the holder, and exist in the service of his needs. Television is no exception. It provides scholars with fertile territory for social and psychological exploration; and it provides practical men with enigmas in deciding what it is they are and should be doing with the medium.

Radio

When television appeared in American homes three decades ago, the doomsdayers snapped off the dials of their radio sets and proclaimed, "Radio is dead." Radio refused to succumb. Today the radio industry is thriving after undergoing a revolution in content and technique that enables it to exist side by side with television.

Radio is everywhere--in homes, transportation and at various business--all maintaining radio sets in the background. Development of the transistorized set contributed heavily to the survival and growth of radio.

Americans absorb radio's messages in words and music with only half realizing that they are doing so. Not only are radio recordings a major form of mass communication, but they contain a subliminal element that is insufficiently recognized.

Approximately 8,000 radio stations broadcast daily in the United States, of which 60 percent are AM (amplitude modulation) and 40 percent FM (frequency modulation) stations. All stations operate under licenses granted by the Federal Communications Commission. The AM stations range in power from 50,000 watt clear channel stations operating 24 hours a day with an audience range of several hundred miles to small 250 watt stations that are on the air only from sunrise to sunset. The reception range of FM stations is relatively condensed.

Before the appearance of commercial television in the late 1940's, radio filled the role that television does today as the purveyor of general family entertainment. Television changed that because it could do the general entertainment job more effectively. Consequently radio executives had to create new forms of programming that did not imitate television. Radio's offerings today are largely recorded music, newscasts and sports.

Many radio stations make no attempt to attract a broadly based audience, but aim their appeal at limited but specialized and loyal groups. They seek to establish their identity with a special "sound." Stations may concentrate on country and western music, hard or soft rock, jazz, soul music, gospel or middle-of-the-road popular melodies supplemented with nostalgia through the use of "golden oldies."

Cable Television

In order to bring improved television service into geographical areas of the United States with inadequate reception, the first Community Antenna Television (CATV) systems were constructed in 1949 in the hills

of eastern Pennsylvania and Oregon. At the end of its first decade, cable television served 550,000 subscribers through 560 systems. By 1969 there were 2,260 systems serving about 3.6 million subscribers. Today more than 3,000 systems serve approximately 7,000 communities. They reach 10 million subscribers in 15 percent of the nation's households and the programs are viewed by an estimated 30 million persons.

Only three to five channels were provided originally. Now newer services not only strengthen existing signals but import programs into areas already served by television and often originate programs of their own or lease channels to those who do. Using live, film or video-tape formats, more than 600 systems originate programming in their own studios for an average of 13.5 hours weekly (10:35).

Since the capacity of the coaxial cable, unlike that of the broadcast spectrum, has no inherent limits, future systems are expected to offer 40 to 80 channels. In doing so they could provide not only diverse broadcast services with improved signal quality, but also a wide array of nonbroadcast entertainment and information services.

Approximately three-fourths of the cable firms are owned by individuals and companies that have other media interests. Thirty-five percent of the systems are linked with broadcast interests, 25 percent with program producers and 15 percent with newspapers (1: 279). The operators invest from about $25,000 for a small black and white operation to $2 million or more for a color studio. The cost of laying cable ranges from $3,500 per mile in rural areas to $80,000 in metropolitan areas. Users pay an average of $15 to have the system connected to their household and then an average of $5.50 per month for the service (1: 279).

III. PURPOSE OF THE STUDY

The major purpose of the study was to determine what mass media broadcast outlets were available to Extension personnel in their respective counties for the use of distributing agriculture and home economics information in an educational manner. Furthermore, to determine if personnel in the counties were using the available outlets and to what extent.

Specific objectives related to the use of the broadcast electronic mass media included:

1. Different types of electronic media available by market areas, county and Extension district divisions.
2. The utilization of the electronic media by Extension personnel in the county and Extension districts.
3. Where it is possible, determine and identify the channels of electronic media that are available but not currently being used by Extension personnel.

IV. DEFINITIONS OF TERMS

The following definitions indicate how these terms were used in the study.

Broadcasting--The dissemination of radio and television communications intended to be received by the public directly or by the intermediary or relay stations.

Chain Broadcasting--Simultaneous broadcasting of an identical program by two or more connected stations.

Communications Act of 1934--Being an act to provide for the regulation of interstate and foreign communication by wire or radio, and for other purposes. Passed by United States Congress, 1934.

Federal Communications Commission--The FCC is composed of seven members, who are appointed by the President and subject to confirmation by the Senate. The Commission is designed for the purpose of regulating interstate and foreign commerce in communication by wire, radio and television so as to make available, so far as possible, to all people of the United States a rapid, efficient, nation-wide and world-wide communication service with adequate facilities at reasonable charges, for the purpose of the national defense, for the purpose of promoting safety of life and property through the use of wire, radio and television communication.

Licensee--The holder of a radio and/or television station license granted or continued in force under the authority of the Communications Act of 1934.

Market Area--The area served by a radio or television station within the boundary of its antenna signal strength.

Mass Media Channels--All the means of transmitting messages that involve a mass medium--radio, television, film, newspapers, magazines, etc.--which enable a source of one or a few individuals to reach an audience of many.

Wire Communication/Communication by Wire--The transmission of writing, signs, signals, pictures and sounds of all kinds by the aid of wire, cable or other like connection between the points of origin and reception of transmission.

Radio

Clear Channel--A clear channel is one on which the dominant station or stations render service over wide areas and which are cleared of objectionable interference within their primary service areas and overall or a substantial portion of their secondary service areas.

Class I Station--A dominant station operating on a clear channel and designed to render primary and secondary service over an extended area and at relatively long distances. The operating power shall not be less than 10 kilowatts nor more than 50 kilowatts.

Class II Station--A secondary station which operates on a clear channel and is designed to render service over a primary service area which is limited by and subjected to such interference as may be received from Class I stations.

Class II A Station--A secondary station of unlimited time, operating on one of the clear channels. It operates with power of not less than 10 kilowatts nighttime nor more than 50 kilowatts at any time.

Class II B Station--A secondary station of unlimited time with operating power not less than 0.25 kilowatts nor more than 50 kilowatts.

Class III Station--A station which operates on a regional channel and is designed to render service primarily to a principal center of population and the rural area contiguous thereto.

Class III A Station--This station operates with power not less than 1 kilowatt nor more than 5 kilowatts.

Class III B Station--This regional channel station operates with power not less than 0.5 kilowatt, nor more than 1 kilowatt night and 5 kilowatts daytime.

Class IV Stations--A station operating on a local channel and designed to render service primarily to a city or town and the suburban and rural areas continguous thereto. The power is not less than 0.25 kilowatt and not more than 0.25 kilowatt nighttime and 1 kilowatt daytime.

Daytime--Permits operation of a broadcast station during the hours between average monthly local sunrise and average monthly local sunset.

Limited Time--Applies to Class II stations operating on a clear channel. It permits operation of the secondary station during daytime and until local sunset and in addition during night hours, if any, not used by the dominant station or stations on the channel.

Unlimited Time--Permits operation within a maximum limit as to time.

Broadcast Day--That period of time between local sunrise and 12 midnight local standard time.

Nominal Power--The power of a standard broadcast station as specified in a system of classification which includes the following values: 50 kilowatts (kW), 25 kW, 10 kW, 5 kW, 1 kW, 0.5 kW and 0.25 kW.

Radio Communication--The transmission by radio, or writing, signs, signals, pictures and sound of all kinds, including all instrumentalities, facilities, apparatus and service incidental to such transmission.

Radio Station or Station--Means a station equipped to engage in radio communication or radio transmission of energy.

Television

Commercial Broadcast Station--Television station designed to sell air time to advertisers in order to make a profit; independent or affiliate.

Noncommercial/Educational Station--Licensed to nonprofit educational organizations only to be used to serve the educational needs of the community; for the advancement of educational programs; and to furnish a nonprofit and noncommercial television service. They may transmit educational, cultural and entertainment programs that are designed for use by schools and school systems.

"E J"-Electronic Journalism--Portable broadcasting equipment that includes: camera, video tape recorder, batteries and electrical connections. This equipment allows a camera person to video tape a particular happening in the field, on location, to be used at a specific time in the future.

Video Tape Recorder--Video taping equipment that allows sight and sound to be placed on tape to be shown back through specialized equipment for broadcasting or closed circuit viewing. Equipment is available in 2 inch, 1 inch, 3/4 inch and 1/2 inch.

Cable System

Cable Television Station (CATV)-Cable Television System--Any facility that, in whole or in part, receives directly, or indirectly over the air, and amplifies or otherwise modifies the signals transmitting programs broadcast by one or more television or radio stations and distributes such signals by wire or cable to subscribing members of the public who pay for such service, but such term shall not include (1) any such facility that serves fewer than 50 subscribers, or (2) any such facility that serves only the residents of one or more apartment dwellings under common ownership, control, or management and commercial establishments located on the premises of such an apartment house.

Educational Access Channel--Channel designated for education purposes. System offers use of an educational channel without charge until a point 5 years after completion of the system's basic trunk line, with subsequent arrangements to be provided after consultation between the FCC and affected interests.

Public Access Channels--Nondiscriminatory access without charge, on a first come, first serve basis, including all equipment and facilities necessary for production. For each channel carrying a broadcast station, the cable system must make available a nonbroadcast channel.

CHAPTER II

REVIEW OF LITERATURE

One would be tempted to predict that probably all media have some demonstrable effects, but that they vary considerably, depending on a number of uncontrolled circumstances. This prediction, which is no more than an extrapolation from the conclusions about evaluative research in general, is unfortunately, quite accurate. Numerous studies have been conducted on the impact on attitudes of books, phamplets, magazines, newspapers, comic books, motion pictures, radio and television. All media do produce some attitude change under appropriate circumstances.

Gary Steiner's 10 year attitude change study that compared television with magazines, newspapers and radio found that television ranked highest in the following areas: (1) entertainment; (2) most complete, quick and unbiased news coverage; (3) presented programs intelligently; (4) education; (5) did the most for the public; (6) created interest in new concepts and (7) offered a better understanding of political candidates and national issues (36: 228).

Another type of investigation compares various media with each other in terms of such characteristics as the complexity of stimuli they can present; the duration of the exposure and their relative effectiveness in presenting certain types of messages (14: 66). For example, printed materials may have lengthy exposure since they are permanent, whereas, television and radio programs are generally available only for a single presentation. Television can appeal to several senses, radio only to one.

It is of interest to determine whether these obvious differences among the media have discernible effects on the impact of communication transmitted by them. The comparison is further enlightened if the impact of mass media methods of communication are compared, not only with each other, but also with those created by interpersonal approaches.

While the experimental comparisons that have been made are not comprehensive, some sample conclusions can be offered. As an example, when the impact of radio and printed materials are compared, it is found that people who listen to the radio also read more than those who do not listen to radio. However, when an individual is asked which exerts the greater influence on him when he reaches a decision, radio is usually selected as the more important influence, presumably because of its greater personal impact (18: 24). Similarly, studies have demonstrated that television has greater impact on attitudes than radio. The Nielsen Company's tabulations show that in early 1970 the trend in total household viewing was 5 hours and 56 minutes per home, per day, on a yearly average (26: 36). This is a 17 percent increase over 1960.

Studies have attempted to explain the superiority of personal influence in decision-making, such as the choice of political representatives, what movies to go to, household appliances and food purchases. The results have indicated that the superiority of face-to-face persuasion lies most of all in its greater flexibility for the approach, if needed, can be modified in terms of the subject's response. Further, this technique is more likely to reach those who are most desirable subjects. One of the major difficulties faced by mass-media attempting to alter behavior is that those who need to be influenced generally refuse to expose themselves.

When the influencer appears in person, he can made direct efforts to reach the appropriate audience, even if it does not at first, present itself.

Much of this comparative research is undertaken for practical ends. Advertisers wish to know how much attitude change different media will produce for a given financial investments. Educators must decide whether films should supplant lectures, or whether closed-circuit television should take the place of field trips in the achievement of specific educational objectives. These questions are of some significance to those faced with such decisions but do not have great general scientific importance because the circumstances surrounding the study are largely controlled. Specifically, the impact of a medium depends, not only on its own nature, but also on the audience to whom it is directed; the nature of the message being transmitted; its presumed source; related social, political and economic conditions; the initial attitude of the subjects toward the issue and so on.

Because of this inherent complexity, communication scientists tend to study the way influence is achieved in mass media in terms of this particular character of the message and the nature of its appeal rather than to investigate the medium by which the message reaches its intended source.

I. RESEARCH RELATED TO THE MASS MEDIA ELECTRONIC OUTLETS AS A VITAL TOOL IN THE COMMUNICATION PROCESS

Communication-Language

Communication is seen in a variety of forms--between machines, the communication of diseases, hereditary traits from parents, between beings,

and so forth. We say that communication occurs when events in one place or at one time are closely related to events in another place or at another time (24: 3).

The central object of our discussion, interest and excitement is the effective communication process of language used as a learning tool via a mass media vehicle.

There seems to be at least two different ways to define language. According to one definition, a language is a socially shared means for expressing ideas (24: 5). This might be called a functional definition, because it is stated in terms of the basic function that a language serves. A second definition states that a language is all the conceivable sentences that could be generated according to the rules of its grammar (24: 5). This might be classified as a formal definition, because it is stated in terms that the forms of all sentences can be generated by the grammatical rules. The formal definition tells you how to decide whether or not a particular utterance is a sentence in the language; the functional definition tells you what the sentence is used for. Both definitions reflect important aspects of language.

We stated that communication is a process that occurs when different events are closely related. The psychology of communication, therefore, must be concerned with relations between different mental or behavioral events. What a speaker says is one set of events, and what his listener understands is the other set. If these two components are closely related, we say that communication is occurring.

Transmitting

Human language is the most effective means of communication that we know about. It has an almost magical power to affect the minds and actions of those who use it. It is not a perfect instrument, and we often encounter incidents where ambiguity intrudes and misunderstanding results.

Most of the misunderstanding of other people is not due to any inability to hear them or to poise their sentence, or to understand their words. One major source of difficulty in communication is that we so often fail to understand the speaker's intentions.

Communication is the process by which messages are transferred from a source to a receiver. The communication process can be exemplified by models. In 1947, Claude Shannon and Warren Weaver of the Bell Telephone Laboratory suggested a model for the process of electronic communication. They said that for communication to take place there must be: (1) a message source, (2) a transmitter, (3) a signal, (4) a receiver and (5) a destination (24: 6).

Later, communication scholars adopted the Shannon-Weaver model using different terms. One of the most popular was designed by David Berlo, then of Michigan State University, labeled the "S-M-C-R Model." A source (s) sends a message (m) via certain channels (c) to the receiving individual (r). Generally, if this process is followed a response will occur which could cause the receiver to change an existing behavior pattern (31: 18).

Miller, in one of his early research papers, concluded that not only did communication entail information passing from one place to another, but that it must have a source and a destination for the

information that is transferred, and these units must be distinct in space or time (4: 10).

Scbramm maintained that for any communication system to function properly, two other terms need to be added to the vocabulary and defined--encoding and decoding. The actual operation of the transmitter is encoding, whereas, the operation of the receiver is generally referred to as decoding. Now with the system functioning correctly, that is sending-responding-replaying back, the cycle is complete, and hopefully communication has occurred comprising the ideal system (31: 251).

One major factor must be considered before the idealized communication system is complete--the possibility of error. Mistakes may occur in encoding or decoding the messages or may be introduced while the signal is in transit over the channel. If the people communicating are unfamiliar with the code, or if they are unable to distinguish the differences among the symbols errors become likely. Likewise, if there is a disturbance in the channel that changes the individual symbols or permutes their order, errors in communication result.

This information that is either transmitted or received involves a learning process whether direct or indirect, intentional or subconsciously.

McLuhan has stated his point of view concerning communication simply, which is often quoted, "The medium is the message." (23: 228). However, the message is a great deal more than the medium, and one effect that most concerns individuals in mass communication is that any individual derives so much of his view of environment from the mass media. The media has the power to focus attention on some events, some ideas, rather than others selectively. They have the power to interpret events, because no reporting can be completely objective, or objectively complete. They have the

power to confer status on some persons, who have the ability to be interesting on radio or television, rather than on others. They have the power to fill in our knowledge of all parts of our environment that we do not experience directly.

Mass Media for Learning

So far we have been discussing communication in very general terms--the importance of language and how ideas are transmitted. But we have not truly distinguished entirely the means or modes of communication.

This study is aimed at learning from the media, primarily the electronic media, therefore some definitions need to be further established. Basically, in learning from the media we should distinguish between learning in face-to-face settings and learning that takes place in a mediated situation.

Face-to-face settings involve communication of any intrapersonal sort, also interpersonal communication and communication in small and large groups. Mediated communication is communication via some medium with no face-to-face involvement. We generally consider reproduced sound, print or visual information that is transmitted as mediated communication.

Communication is the transfer of ideas from a source with a viewpoint of modifying the behavior of receivers. The communication channel is the means. The type of communication channel by which a new idea reaches the receiver is important in determining whether to adopt or reject the innovation. Usually the choice of communication channel lies with the source (S) and should be made in light of: (1) the purpose of the communication act; and (2) the audience to whom the message is being

sent. If the source (S) wishes to inform the receiver (R) about the innovation, mass media channels are often the most rapid and efficient, especially if the receiver's number is large. However, if the source (S) objective is to persuade, to form a favorable attitude, an interpersonal channel is more effective.

The mass media can:

1. Reach a large audience rapidly.
2. Create knowledge and spread information.
3. Lead to changes in weakly held attitudes. (31: 252)

The source (S) should choose between mass media and interpersonal channels on the basis of the receiver's stage in the innovation-decision process, whether at the knowledge or persuasion stage.

How do people learn from mass media? Simply a problem is presented to the learner; he attempts to solve it, and he is immediately informed whether his attempted solution is correct. There are three components that stimulate learning via mass media: (1) time to answer the posed question; (2) practice or given the opportunity to give back the information as presented and (3) present encouraging stimuli to covert practice.

Innovation-Decision Process

The innovation-decision process is the mental process through which an individual passes from first knowledge of an innovation to a decision to adopt or reject and to the confirmation of this decision.

The adoption or rejection of an innovation is a decision by an individual and if he chooses to adopt he is choosing a new alternative over those previously in existence.

An individual's decision about an innovation is not an instantaneous act. Rather, it is a process that occurs over a period of time and consists of a series of actions.

The traditional view of the innovation-decision process, called the "adoption process" was postulated by a committee or rural sociologists in 1955 as consisting of five stages:

1. *Awareness Stage.* The individual learns of the existence of idea but lacks information about it. The mass media is the major contributor to the awareness stage.
2. *Interest Stage.* The individual develops interest in the innovation and seeks additional information about it. Mass media again plays the contributing role in developing interest.
3. *Evaluation Stage.* The individual makes mental application of the new idea to his present and anticipated future situation and decides whether or not to try it. Mass media plays a minor role in evaluation.
4. *Trial Stage.* The individual actually applies the new idea on a small scale in order to determine its utility in his/her own situation. In the trial stage, mass media does not play a major role.
5. *Adoption Stage.* The individual uses the new idea continuously on a full scale. The mass media continues to re-enforce his/her decision. (31: 100-101)

This conceptulization of the adoption process has been highly favored by diffusion researchers in the past. Recent critics of this model point that it is too simple. These critics maintain little agreement

on the number of stages in the process although the researchers generally recognize that adoption is the result of a sequence of events and not random behavior.

Communication sources and channels provide stimuli to the individual during the innovation-decision process. The typical individual gains initial knowledge of the innovation mainly from mass media channels, secondly from his/her peers, followed by agriculture agencies and sales persons/dealers.

Social scientists have gone one step further and have characterized people who adopt ideas and have assigned labels to them depicting the type category. As Rogers expressed it, ". . .there are ideal types, conceptualized on the bases of observations or reality and designed to make possible comparisons" (31: 195, 183).

1. *Innovators.* Observers have noted that venturesomeness is almost an obsession with innovators. They are eager to try new ideas. This interest leads them out of a local circle of peers and into more cosmopolite social relationships. Usually, but not always, they are successful in their fields, and are in a relatively high income bracket. Their status in the community is secure. From the standpoint of prestige and money they can afford to take risks and made mistakes.
2. *Early Adopters.* This group is just a step behind the innovators in the adoption time sequence. They are willing to let the innovators prove the practice or make the mistakes, but they watch closely.
3. *Informal Leaders--Early Majority.* The informal leader is not always best, right or successful, but he is known for good

relationships with nearly everyone around him. He adopts an idea or a concept only after it has been proved in practice by the innovators and early adopters.

4. *Majority--Late, Skeptical.* Late majority adopt new ideas just after the average member of a social system. Adoption may be both an economic necessity and the answer to increasing social pressures. Innovations are approached with a skeptical and cautious air.
5. *Laggards--Nonadopters.* These individuals are the last to adopt an innovation and generally possess almost no opinion leadership. The point of reference for the laggard is the past. Decisions are usually made in terms of what has been done in previous generations.

II. RESEARCH RELATED TO RADIO IN THE COMMUNICATION PROCESS

History of Radio

Various inventions in the nineteenth century paved the way for the perfecting of radio in the twentieth. Gugliolmo Marconi's development of wireless telegraphy was followed by an improvement made by Dr. Lee De Forest in 1906 in the vacuum tube that made voice transmission possible. In 1912 Congress empowered the Department of Commerce to issue licenses to private broadcasters and assign wave lengths for commercial operators, primarily to prevent interference with government point-to-point message communication.

The first broadcast station was KDKA in Pittsburgh which began operating November 2, 1920. KDKA was owned by Westinghouse and its first program was the returns from the Harding-Cox presidential election. By March of 1923 there were 556 stations (1: 81).

Radio made a spectacular leap forward when the National Broadcasting Company, a subsidiary of the Radio Corporation of America, was formed late in 1926 and extended programming coast to coast. CBS, Columbia Broadcasting System was created in 1927 and in 1934 the Mutual Broadcasting System was organized. ABC, American Broadcasting Company grew out of a split created by NBC in 1945.

Under the First Amendment to the Constitution, government is retained from interfering with the freedom of the press or the freedom of speech. When stations jumped from one wavelength to another to avoid interference, Congress in 1927 established a five-man Federal Communications Commission to regulate the airwaves in the interest of the public.

Federal Communications Commission Classifications

Broadcasting stations identified by the FCC have been licensed for transmission of radio telephone emissions primarily intended to be received by the general public. These stations operate on a channel in the band of 535 to 1605 kilocycles for Amplitude Modulation (AM) stations and 88 to 108 megocycles per second for Frequency Modulation (FM) stations (39: 73.1, 73:201).

Channels are designated by their assigned carrier frequencies. The 107 carrier frequencies are assigned to standard broadcast stations beginning at 540 kilocycles and in successive steps of 10 kilocycles up to 1600 kilocycles (kc) (39: 73.3).

Nominal power is the power of a standard broadcast station, as specified in a system of classification which includes the following values: 50 kilowatts (kW), 25 kW, 10 kW, 5 kW, 1 kW, 0.5 kW and 0.25 kW (39: 73.14, c)

To further accommodate a larger number of radio stations, the FCC uses a system of channel and station classifications. This system divides the 107 channels into three classes: Clear, Regional and Local. This same system also divides the radio stations in turn, into Classes I, II, III and IV. Each class of station is defined in terms of both channel and power.

A clear channel is one on which the dominant station or stations render service over wide areas. The primary service area is free from objectionable interference from other stations. These stations operate with power not less than 10 kilowatts nor more than 50 kilowatts (39: 73.21)

The frequencies 730, 800, 900, 1050, 1220 and 1570 kc/s, for the Class II Clear Channel stations allow them to operate as daytime only stations with a maximum of 5 kW's of power (39: 73.25).

Regional channels are intended to serve limited areas with operating power of 5 kW power during daytime hours and reduce power during nighttime broadcasting.

Frequencies 1230, 1240, 1340, 1400, 1450 and 1490 are designated local channels serving a very restricted area. These stations broadcast with 1 kW of power during daytime broadcasting and 250 watts at night (39: 73.25).

The FM broadcast band consists of that portion of the radio frequency spectrum between 88 megacycles per second (Mc/S) and 108 Mc/S. It is divided into 100 channels of 200 kilocycles per second (kc/S) each. The FCC has set up a national FM assignment table providing 1,098 specific channel assignment by city and state. Small, medium and large communities are authorized Class A, B and C stations respectively. Station classifications are defined in terms of both power and antenna height, ranging from a minimum power of 100 watt and antenna height of 300 feet for Class A stations to a maximum power of 100,000 watts and antenna height of 2,000 feet for Class C stations (39: 73.201).

The direct radiation of FM signals from transmitter to receiver produces a stable coverage pattern, its size and shape depending on transmitter power, the height of the transmitting antenna and terrain formation. The FM signal blanks out interference from other stations better than AM signals. The most important advantage is the freedom from static interference.

A Class A station authorized by the FCC is designed to render service to a relatively small community, city or town and the surrounding rural area. A Class A station is not authorized to operate with effective radiated power greater than 3 kW and antenna height above the average terrain of 300 feet (39: 73.206).

The Class B or C station is designed to render service to a sizable community, city or town or to the principal city or cities of an urbanized area, and the surrounding area. With respect to Class B and C stations, they have up to 50 kW of effective radiated power and antenna height of no more than 500 feet (39: 73.206).

A Communication Means

Radio broadcasting is a different kind of communication from the press or film, but these differences have made this electronic medium particularly interesting.

1. Radio achieved, via the Communication Act of 1934, a quasi-public utility status. It is not, like print, unequivocally protected by the First Amendment Broadcasters were charged by law with serving "the public interest" as a major condition of their licenses to broadcast.
2. The content of radio broadcasting might be qualified and fairly easily measured against indices of popularity of programs among certain segments of the audience.
3. Various rating services began in the 1930's providing reliable statistics concerning the vital matter of broadcasting patronage. Granting the reliability and validity of these studies, the great challenge to cultural analysts was explaining the resulting statistics.
4. The broadcast medium emerged as a vital cultural and commercial force de novo, without fulling delineated models from which to draw in the history of literature, as in the case of print or the theatre and fine arts--cinema Drawing upon old traditions radio broadcasters worked modifications of former types of communication that were distinctly their own: poetic drama, musical entertainment, news reporting and commentary.

III. RESEARCH RELATED TO TELEVISION IN THE COMMUNICATION PROCESS

Television as a Medium

Television is an electronic magic carpet that transports millions of persons each day to faraway places. It is a twentiety-century creation of the industrial and technological revolution that has transformed much of the world for the past two centuries, and its impact on our social, political and cultural life becomes more profound each year.

Television is considered the most pervasive medium known to modern man. The average American devotes more time to watching television--almost 7 hours daily--than to any other form of leisure time activity (1: 274). Five of every 7 stations, and there are more than 950 stations in all, broadcast on the long established very high frequency (VHF) bands, using channels 2 through 13; and the remainder on ultrahigh frequency (UHF), channels 14 through 83 (1: 275). Nine of every 10 homes receive UHF programs. Residents of more than 135 cities view the program fare of three or more local stations.

Eighty-two television channels have been made available, numbered 2 through 13 in two segments of the VHF band, and 14 through 83 in the UHF band. The UHF channels were added in 1952 after it had become evident that 12 VHF channels could not provide for near enough stations.

Commercial stations are intended to produce a profit to its owners. In order to assure this profit, most commercial stations are affiliated with a major network for the majority of their programming.

Noncommercial education stations are licensed only to nonprofit educational organizations upon showing that the proposed stations will be

used primarily to serve the educational needs of the community and to furnish a nonprofit and noncommercial television service. In determining the eligibility of publicly or privately controlled educational organizations, the accreditation of state department of education or recognized regional and national educational accrediting organizations are taken into consideration.

Noncommercial education television broadcast stations may transmit educational, cultural and entertainment programs, and programs that are designed for use by schools and school systems in connection with regular school courses, as well as routine and administrative material.

Television as a Teaching Tool

Neilsen Company's studies and the census data shows that by the beginning of the sixties, the television set had become one of the more familiar objects in American households; nearly nine-tenths of all families had at least one set in working order (26: 36). Color television sets for home use had just become available in the early 60's but by 1970 over 33 percent of all American households had at least one color television (18: 24). Further research related to this time frame shows that households in which there are children or adolescents, report 98 to 99 percent saturation and of this percentage, 40 to 50 percent watch on color sets (18: 24).

Television watching is still primarily an experience shared by family members. The living room or another room serving as the family gathering place is the most frequently reported location for the television set. By far the most viewing recorded was done in the company of

other members of the family, which accounts for the long viewing time and program selection.

Chaffee, McLeod and Atkin (11: 210) report that three-quarters of adolescents they studied said they sometimes watched television because their parents were watching. When the children were studied in regard to why their parents were watching, they, the children, felt it was because they were. These researchers felt that after interpreting their data that this does not represent a simple modeling situation in which the youngster learns patterns of viewing from his parents.

LoSciuto found that most families interviewed had access to stations carrying all three networks plus at least one additional channel (18: 20). The handicap facing UFH stations in LoSciuto's research, which carries many noncommercial education stations, was that his families lived within signal range of a UHF station, and only 47 percent of the families had sets equipped to receive UHF signals. Murray and Lyle, and Hoffman (18: 20) found that the majority of families in their major metropolitan area, all of whom had school-age children, had UHF receivers.

Why Watch Television?

Education has something to do with the shaping of attitudes toward television. Race, along with education, appears to affect both viewing and views about television (4: 35).

People say they watch television for the perfectly acceptable reason of general enjoyment, to see particular programs and somewhat less on their list, to learn something. They are still eschewing, as personal motivations, the desire for background noise, a fear of missing something, an escape from other activities and reasons of pure sociability (30: 575).

The educated viewer is more apt to watch educational television, though even for him, the viewing time is slight. He wants more educational material on television but he doesn't maintain that he watches television because he might learn something. The composite college man's views for watching television are not generally considered a learning experience, but he would like for it to be more educational. The composite grade school graduate, on the other hand, sees education--learning something--as a fairly strong motive for watching whatever he watches (4: 35).

Social observers have identified several functions that television performs in everyday life. Television has been said to provide relaxation, to foster escapism and passivity, to affect family life, to define the broad outlines of the outside world, to set social norms and expectations, to homogenize language and customs, to destroy economic competition, to encourage consumption of trivial goods, to engender development of superficial personality traits, to redesign the schedule of everyday living patterns and to increase the feeling of national identity. Actually there is no suitable way in which all of these functions could be subsumed into a single framework, for some of these functions refer to processes within individuals, some to interpersonal relations among individuals and some to the society as a whole.

Educational Television

Steiner's 1971 study and other researchers found that few viewers consciously turned on their television sets for strickly educational purposes (36: 101). The high mortality rate and small audience for

documentaries and news specials offer ample supplementary testimony. This is in reference to network programming only.

In 1960 there were 75 UHF and 440 VHF commercial stations broadcasting throughout the United States. By 1970, this segment of the television industry had grown to 184 UHF and 508 VHF stations with an estimated audience of 24 million viewers per week (15: 199).

Noncommercial educational television had 10 UHF and 34 VHF stations in 1960 compared to 34 UHF and 78 VHF in 1970. While typically referred to as "educational television," specific educational or instructional content is only one aspect of the programming. Serious drama, documentaries and news analysis, public-service programs and informative children's shows, as well as some rather innovative presentations considered too controversial for commercial television are some of the types of broadcasts which have found their way into public television.

The 1970 statistics do not point to any dramatic invasion of Educational Television into commercial television's audience, but it does indicate a growing awareness of the noncommercial medium. The 1970 survey reveals that 50 percent of the respondents in all television households were aware of being able to receive an educational station, and that 96 percent of this group could identify the station channel by number (16: 24).

The distribution of properly equipped sets, in places where ETV is available, definitely favors the more affluent and better educated viewer. One survey (4: 37) revealed that only 27 percent of the population with grade school education were able to receive an educational station and actually watched any of the programs; 24 percent stated that they watched

more than once a week. This compares to 51 percent of college graduates with some formalized training watching educational television (4: 38).

Even though the college educated watch educational television considerably more than the less educated, the total time they spend in that pursuit is still small. The median amount of weekly viewing of the college educated, among those who watch ETV at all, is 1 hour and 50 minutes, and only 14 percent of that group reported watching as much as 5 hours a week (4: 38). Educational television has not yet seriously altered the over-all viewing patterns even of the college educated.

Among the age groups, the young and old--under 20 and over 60--share in a relative lack of attention to educational television. The viewers are found more frequently in the in-between years when there are apt to be children around the house (4: 39-40).

One could describe the 1970 adult audience of educational television as composed largely of the well educated, in their middle years, living in the less isolated parts of the country, with an added chance of viewing if a young child is in the house.

IV. RESEARCH RELATED TO CABLE TELEVISION SYSTEMS

What is Cable Television?

Cable television is a system for carrying television signals by wire rather than transmitting them over the air. Coaxial cable is used and this wire can carry many different television channels simultaneously without interference.

The first Community Antenna Television (CATV) systems were constructed in 1949 in the hills of eastern Pennsylvania and Oregon. At the end of

its first decade, cable television served 550,000 subscribers through 560 systems. By 1969 there were 2,260 systems serving about 3.6 million subscribers. Today there are more than 3,200 systems serving approximately 7,000 communities. They reach 10 million subscribers in 15 percent of the nation's households, and the programs are viewed by an estimated 30 million persons (1: 279).

Three to five channels were provided originally, now newer services not only strengthen existing signals but import programs into areas already served by television and often originate programs of their own or lease channels to those who do. Using live, film or video-tape formats, more than 600 systems originate programming in their own studios, the average for 13.5 hours weekly (1: 279).

Approximately three-fourths of the cable firms are owned by individuals and companies that have other media interests as well. More than 35 percent of the systems are linked with broadcast interests, almost 25 percent with program producers, and almost 15 percent with newspapers (1: 280).

Cable television receives signals from local television stations and are picked up by special antennas placed on a hilltop or some other favorable location. A cable brings the signals to a "headend," where they are amplified and fed onto the cable distribution system. The distribution system consists of trunk cables extending from the headend, "feeder" cables branching out along streets and alleyways, and "drop" cables running from a feeder line into the subscribers' home. The cables are strung on overhead utility poles along with electric and telephone wires or buried in underground ducts.

Cable communications provides more television channels than broadcast television since it allows use of channels that are adjacent to each other without signal interference. In addition to the portion of the spectrum allocated, cable systems can carry the frequencies that broadcast television cannot, plus cable systems can transmit FM radio signals.

Because cable television uses a municipal right-of-way, cable systems nearly always operate under a franchise from the local city, town or county. Up to the mid-1960's, the federal government and the states showed little concern with cable regulation. In 1966 the Federal Communications Commission exerted its regulatory authority over cable and prohibited further importation of distant signals into the 100 largest United States television markets. During the Spring of 1972, the FCC issued the first comprehensive set of regulations regarding cable television.

The new set of FCC rules that went into effect March 31, 1972 changed the course of cable development. The FCC rules permit all cable systems in the major market areas to bring in some distant signals, plus they must offer new nonbroadcast services which include: (1) local programming, usually known as "cablecasting;" (2) leased channels for pay television and other services; (3) public access to cable channel; (4) a channel for educational programming; (5) a channel for municipal services and (6) a capacity for two-way services, such as public opinion polling, that requires a return signal from the subscriber (2: 7).

Cable television systems utilize one of four basic types of program formats. They are:

1. *Continuous Channel.* The continuous channel rarely has a program schedule. The material is one of the same genre--news, weather, stocks, messages or local news.
2. *Catch-All Channel.* The catch-all channel consists of combination of original network programming, selected distant signals "feeds," local cablecasting, public access, educational and municipal programming.
3. *Limited Programming Channel.* The limited programming channel serves a variety of needs ranging from commercial to non-commercial usage. These channels can also fall into the "access," municipal, educational or lease channel classification.
4. *Station-Status Channels.* The station-status channels achieve station identity only. To do this a cable station must operate a minimum of two consecutive hours a day, five days a week.

Cable Systems as a Tool

The most important thing to know about cable television is that it is not just television received through a cable. Cable systems are like icebergs--many dimensions of their forms are hidden from first glance. Cable television is a two-way decentralized medium.

There are many reasons why local educators might want to take advantage of cable television. With the conduit used to interconnect schools--particularly those wired for closed circuit television--cable technology can have great influence in the classroom, permitting the specialized facilities of any single school to be shared throughout the system.

In any cabled community, it is likely that the system will reach into less than half the homes (2: 7). While this is not a factor when considering in-school use of the cable, low penetration certainly mitigates against school-to-home use. The situation can be improved, perhaps significantly, through the use of viewing sites in such places as the public libraries, government buildings, campus centers or the cable system's facilities.

Hughes Corporation market research indicates that between 8 and 12 percent of the people whose homes are passed by the cable, but who are not themselves subscribers, would be tempted to sign up if educational programming were offered on pay television. It is reasonable to assume that the temptation would be even greater if the programming were offered not on pay television, but as part of the regular cable service.

V. MASS MEDIA APPEALS

Mass patronage is a function of age, economic status, education, sex and a host of other factors that apparently have little to do with communication. We do know the following:

1. Young children watch a lot of television, but other media experiences with radio, recordings and films, as well as life activities seem to diminish video viewing in the early teens. Viewing picks up again in the adult years and increases among the very old.
2. Economic factors are a major contributor to media usage. Poorer people patronize television and to some degree radio. Higher economic status persons tend to utilize the

communications media that cost money--newspapers, books, magazines, film, etc.

3. Patronage of television decreases with the amount of education one has undergone.
4. More women than men watch television; daytime video and early evening prime-time hours are favored. Men tend to favor "serious" reading, hard news, politics, financial matters and sports in all media.
5. Media that deals with the simplicities, that is optimistic, plus appeals that are directed more to people's emotions than to their intellects is usally the choice chosen by the masses.

Our understanding of teaching and learning of motor skills, verbal and nonverbal information and concepts and the role of communication in this process is still far from being fully understood. Moreover, our understanding of the communication processes involved in the acquisition, retention and resistance to persuasion is as yet really primitive.

CHAPTER III

METHODS AND PROCEDURE

I. POPULATION AND SAMPLE

In order to obtain a concise perspective of what use Tennessee Extension Service was making of the electronic media to disseminate agriculture and consumer information throughout the state, a series of methods were used to locate existing electronic media outlets. These methods included a telephone survey, questionnaire and supplemental research through the *Broadcasting Yearbook*, *Cable Source Book* and current FCC issued licenses.

Tennessee has a total of 245 AM and FM--147 AM and 88 FM--broadcast radio stations, excluding the stations that are located in high schools, community colleges and colleges that are used for the sole purpose of providing actual on air broadcast experience for students.

Currently Tennessee has 18 commercial television stations serving the state. There are eight noncommercial educational stations scattered throughout the state that provide educational programming from one centralized origination point and the Public Broadcasting System.

A total of 66 cable television systems provide most of the 95 counties in Tennessee with network, independent and educational programming in the outlying areas.

II. SOURCE OF DATA

One instrument used to gather data was a telephone survey directed at the Tennessee Cable Television systems. The survey was developed and

conducted by the Radio/Television specialist at the University of Tennessee, Institute of Agriculture.

The telephone survey was conducted early in 1978. The questions were directed to the various station managers at each of the 66 cable stations. The purpose of the survey was to determine what type of equipment each cable station had for programming production use; if these stations were interested in local origination programming and if their cable system would be receptive to the idea of obtaining produced programming materials from the University of Tennessee.

The questionnaire was divided into three sections to obtain a composite look at the individual operation of each cable station. The questionnaire divided in this manner helped the interviewer to understand better the general feeling that the station manager maintained in regards to the basic functions of the cable station within the community that it served. All stations responded to the telephone survey.

Section one of the questionnaire was general information relating to the station itself in regard to: (1) when the station actually originated; (2) the number of subscribers; (3) actual number of homes in their franchise area and (4) the amount of cable, by miles, in existence in the community.

Section two of the telephone survey included information regarding the number of stations that the cable system had been granted through their FCC license. This number represents the total channel allocation whether they are utilized or not. The FCC allocates each cable system, based on their advertised market area size, so many channels that are

classified as commercial, noncommercial, automated, local for local origination programming and leased.

Section three of the questionnaire dealt strickly with the programming equipment that the cable stations physically possessed that could be or is used by the automated channel or local orgination programming channel.

To have a better working idea of what these cable stations looked like physically, the researcher did visit with two cable companies and talked with the local managers in regard to their general operations and programming procedures. The two stations were Athena Cable, Knoxville and Sammons Communications in Morristown, Tennessee.

Athena Cable maintains some video programming portable equipment and has excellent in-house studio facilities. However, recently their channel 20 has been leased to Saint John's Episcopal Church which has studios, video taping equipment and the personnel to program local productions. Therefore, it has become increasingly unnecessary for Athena to use their equipment for local origination programming. To date, all local programming is scheduled and handled through the facilities provided by channel 20.

Sammons Communication, in Morristown, can be classified as what you would consider a typical community antenna system for Tennessee. Their main function is to provide better commercial and noncommercial network reception to the Hamblen county area. The system does have one automated channel that is used for news and weather up-dates. One weekly 30 minute live program is produced in their studio which consists of a report given by the city mayor relating to city council and governmental functions for

Morristown. Time and facilities do permit interested viewers to call in and ask questions directly to the mayor. A second weekly program is handled through the cable facilities but originates at a local church. The church has purchased extensive equipment for video production and televise weekly their Sunday service through a direct tie-in with the cable system.

Information regarding the types of agriculture and home economics radio program produced weekly was obtained through several sources.

A questionnaire mailed to all County Extension leaders revealed the time, day of week, station and length of program feature where applicable in each county. Most of this information is listed in the Extension Circular Number 636 and is broken down by the Extension districts.

Personal visits by appropriate staff members of the Office of Communications to various radio stations throughout the state, plus a constant up-dating of office records reveal the number of counties that utilize one or more of the prepared agriculture/home economics programs that are produced at the University of Tennessee.

The author also ran a cross reference of all commercial radio stations to determine if they were considering agriculture programming to be of significant importance to report it to the FCC as part of their license renewal. This information was listed as special programming. The 1978 *Broadcast Source Book* and FCC license renewals listed in *Broadcasting* revealed this listing.

CHAPTER IV

FINDINGS OF THE STUDY IN RESPECT TO RADIO STATIONS WITHIN THE STATE OF TENNESSEE

The purpose of this chapter is to present the findings of the study in regard to licensed broadcast radio stations, AM and FM, in the state of Tennessee This will be done under the following purpose-related topics:

1. Classification by Federal Communications Commission of Tennessee radio stations.
2. Tennessee AM and FM radio stations.
3. Agriculture programs by Extension personnel and other agencies.

Comparisons will be made between the divisions of radio stations, type of station they represent and how this relates to Extension programming. Discussion will also include the type of programming now available to radio stations from the Institute of Agriculture, county personnel and other agencies for agricultural information.

I. CLASSIFICATION BY FCC OF TENNESSEE RADIO STATIONS

A standard Broadcast Station means that broadcasting station which has been licensed for the transmission of radio telephone emissions primarily intended to be received by the general public and operated on a channel in the band of 535-1605 kilocycles for AM stations and 88-108 megacycles per second for FM stations.

A standard Broadcast Channel is that band of frequencies occupied by the carrier and two side bands of a broadcast signal with the carrier

frequency at the center. Channels are designated by their assigned carrier frequencies. The 107 carrier frequencies are assigned to standard broadcast stations beginning at 540 kilocycles and in successive steps of 10 kilocycles up to 1600 kilocycles (kc) for AM and 100 channels of 200 kilocycles (kc) seconds for FM.

Daytime broadcasting, as designated by the FCC, means that period of time between local sunrise and local sunset. Whereas, nighttime means that period of time between local sunset and local sunrise.

Classification of AM and FM Radio Stations

Table I shows that in Tennessee there are 157 AM stations and 88 FM radio stations. We readily see that the AM stations are subdivided into five classes with the Regional Channels--Classes III-A and III-B the largest having 73 stations. Within the FM group, Class A is the largest with 48 stations.

AM Channel and Station Classification

To accommodate a larger number of radio stations, the FCC uses a system of channel and station classifications. This system divides the 107 channels into three classes: Clear, Regional and Local. This same system also divides the radio stations in turn, into Classes I, II, III and IV. Each class of station is defined in terms of both channel and power.

Table II shows the five divisions used for AM stations. Clear Channel Class I has 1 station; Class II, Daytime Only has 11 stations; Regional Channels Classes III-A and III-B has 73 stations; Local Channels-Class IV has 33 stations and Class I and Class II Clear Channel has 39 stations.

Table I. Divisions of Tennessee Radio Stations by FCC Classifications

Type Classification	Number of Tennessee Stations
AM Stations	
Clear Channel Class I, 50 kw	1
Class II--Daytime Only, 5 kw	11
Regional Channels--Classes III-A and IIIB	73
Local Channels--Class IV	33
Class I and Class II Clear Channel	39
FM Stations	
Class A	48
Class B and C	40
Total	245

Table II. Tennessee AM Radio Stations Classification According to the Federal Communications Commission

Channel	Station Call Letters and Location
Clear Channel Class I 50 kw	
650	WSM, Nashville
Class II--Daytime Only 5 kw	
730	WLIL, Lenior City
800	WDEH, Sweetwater
900	WDXV, Knoxville; WCOR, Lebannon
1050	WSMT, Sparta
1220	WFWL, Camden; WCPH, Etowah; WEQO, Wartburg
1570	WHLP, Centerville; WCLE, Cleveland; WTRB, Ripley
Regional Channels Classes III-A and III-B	
540	WDNX, Clarksville
560	WHBQ, Memphis
580	WOFE, Rockwood
600	WREC, Memphis
620	WRJZ, Knoxville
790	WMC, Memphis
910	WJCW, Johnson City, WEPG, South Pittsburg
920	WLIV, Livingston
930	WSEV, Sevierville
950	WAGG, Franklin
960	WBMC, McMinnville
970	WETB, Johnson City
980	WSIX, Nashville
1010	WHIN, Gallatin; WORM, Savannah
1150	WGOW, Chattanooga; WCRK, Morristown
1250	WKBL, Covington; WZZI, Madisonville; WNTT, Taxewell
1260	WNOO, Chattanooga, WMCH, Church Hill; WDKN, Dickson; WCLC, Jamestown
1270	WLIK, Newport
1280	WMCP, Columbia; WDNT, Dayton
1290	WATO, Oak Ridge
1300	WMTN, Morristown; WMAK, Nashville
1310	WDOD, Chattanooga; WDXI, Jackson; WBNT, Oneida
1320	WKIN, Kingsport; WMSR, Manchester
1330	WAEW, Crossville; WRTO, Dyresburg
1350	WRKM, Carthage
1360	WBLC, Lenior City; WNAN, Nashville

Table II. (Continued)

Channel	Station Call Letters and Location
1370	WDEF, Chattanooga; WDXE,Lawrenceburg; WRGS, Rogersville
1380	WYSH, Clinton; WIZO, Franklin; WTNN, Millington
1390	WYXI, Athens; WTJS, Jackson; WMCT, Mountain City
1410	WCMT, Martin
1420	WEMB, Ersin; WKSR, Pulaski
1430	WJBE, Knoxville; WENO, Nashville; WWEE, Memphis
1440	WZYX, Cowan; WHDM, McKenzie
1460	WJAK, Jackson; WEEN, Lafayette
1470	WEAG, Alcoa; WVOL, Berry Hill
1480	WJFC, Jefferson City; WMQM, Memphis; WJLS, Smithville
1590	WMSO, Collierville; WJSO Johnson City; WDBL, Springfield
1600	WHBT, Harriman; WKBJ, Milan
Local Channels Class IV	
1230	WMLR, Hohenwald; WAKI, McMinnville
1240	WBEJ, Elizabethon; WEKR, Fayetteville; WBIR, Knoxville; WKDA, Nashville; WEDG, Soddy Daisey; WENK, Union City
1340	WBAC, Cleveland: WKRM, Columbia; WGRV, Greenville; WKGN, Knoxville; WLOK, Memphis; WCDT, Winchester
1400	WJZM, Clarksville; WHUB, Cookeville; WLSB, Copperhill; WKPT, Kingsport; WGAP, Maryville; WHAL, Shelbyville; WAAN Waynesboro
1450	WLAR, Athens; WMOC, Chattanooga; WDSG, Dyersburg; WSMG, Greenville; WLAF, Lafollette; WGNS, Murfreesboro
1490	WOPI, Bristol; WDXB, Chattanooga; WCSU, Crossville; WKVQ, Knoxville; WJJW, Lewisburg; WDXL, Lexington
Class I and Class II Clear Channels	
680	WMPS, Memphis
710	WTPR, Paris
810	WMTS, Murfreesboro
850	WIVK, Knoxville
940	WELO, Wartburg
1060	WPHC, Waverly
1070	WFLI, Chattanooga; WDIA, Memphis
1090	WENR, Chattanooga, WJKM, Hartsville; WHMT, Humboldt; WGOC, Kingsport
1110	WSLV, Ardmore; WUAT, Pikeville
1130	WAMG, Gallatin; WDTM, Selmer
1140	WIXC, Fayetteville
1190	WAMB, Nashville

Table II (Continued)

Channel	Station Call Letters and Location
1500	WDEB, Jamestown; WTNE, Trenton
1510	WLAC, Nashville
1520	WBHT, Brownsville; WIDD, Eliazbethon
1530	WJPJ, Huntingdon
1540	WBIN, Benton; WJJT, Jellico; WBRY, Woodbury
1550	WKYE, Bristol; WPTN, Cookeville; WOKI, Oak Ridge; WTBT Parsons; WCHU, Soddy Daisy
1560	WBOL, Bolivar; WWGM, Nashville
1580	WHHM, Henderson; WSKT, Knoxville; WLIJ, Shellyville

A clear channel is one on which the dominant station or stations render service over wide areas, and which are cleared of objectionable interference within their primary service areas and overall are a substantial portion of their secondary service areas. The one dominant station in Tennessee operating on a clear channel is in Nashville, WSM, operating with power not less than 10 kilowatts but no more than 50 kilowatts. WSM is "unduplicated" in the sense that it does not have to share dominance with any other station, not even a secondary station. Due to the power and range of this station, Extension personnel having programs broadcast by WSM could easily anticipate extensive daytime coverage within the state and nighttime programming that would possibly extend into other surrounding states.

Class II, Clear Channel stations only have six frequency allocations. They are daytime only operating with a maximum of 5 kilowatts. These stations operate only from local sunrise to local sunset and consequently are continually juggling program schedules. This station will utilize a variety program format to appeal to audiences that are at home and during drive time. They tend to offer shorter programs to maintain interest. Extension personnel would find that short programs on "how to" or "why" would be more effective than trying to give announcements related to meetings or events.

Regional Channels Classes III-A and III-B serve more limited areas than Clear Channel Class I stations. They are intended to be localized operating with 5 kW of power during daytime hours and by law reducing their power during nighttime broadcasting. These stations try to fill

the need for covering local events which is evidenced by their coverage of school sports activities, political meetings, etc. Extension personnel generally would find these stations extremely helpful in promoting ongoing activities and special events.

Local Channels, Class IV stations have a more restricted service area--a single small community or a part of a metropolitan area. They operate with 1 kilowatt of power for daytime broadcasting and 250 watts at night. Their audiences are limited or confined to small areas.

Class I and Class II Clear Channel transmit from 500 watts to 50 kilowatts power for daytime operation but many have to reduce power transmission at night. They are secondary channel with extended coverage.

FM Channel and Station Classification

The FM broadcast band consists of that portion of the radio frequency spectrum between 88 megacycles per second (Mc/S) and 108 Mc/S. It is divided into 100 channels of 200 kilocycles per second (kc/s) each. The FCC has set up a national FM assignment table providing 1,098 specific channel assignments by state and city. Small, medium and large communities are authorized Class A, B and C stations respectively. Station classifications are defined in terms of both power and antenna height ranging from a minimum power of 100 watt and antenna height of 300 feet for Class A stations to a maximum power of 100,000 watts and antenna height of 2,000 feet for Class C stations.

Table III indicates that there are 48 Class A stations and 40 Class B and C stations.

The direct radiation of FM signals from transmitter to receiver produces a stable coverage pattern, its size and shape depending on

Table III. Tennessee FM Radio Stations Classification According to the Federal Communications Commission

Channel	Station Call Letters and Location
Class A	
93.5	WKBL, Covington; WLIL, Lenior City
94.3	WPTN, Cookeville; WEEF, Germantown; WJJM, Lewisburg; WTHL, Lobelville; WUUU, Oak Ridge; WSIM, Chattanooga; WDBL, Springfield
95.3	WTBG, Brownsville; WDEH, Sweetwater
95.9	WDEX, Lawrenceburg; WAZI, Morristown
96.7	WVST, Bolivar; WIKA, Centerville
97.7	WMSR, Manchester; WMC, Memphis
98.3	WRJB, Camden; WHUB, Cookeville; WMGL, Pulaski
99.3	WAEW, Crossville; WIDD, Elizabethon; WSBM, Jefferson City; WDXL, Lexington
100.1	WASL, Dyersburg; WIZO, Franklin
100.9	WPVG, Huntingdon
101.7	WKOM, Columbia; WCMT, Martin;WORM, Savannah; WJLE, Smithville
102.3	WRKM, Carthage; WTNQ, Dickson;WIRJ, Humboldt, WZDQ, Soddy Daisy
103.1	WMCC, Etowah
103.9	WXIS, Erwin; WDEB, Jamestown; WBMC, McMinnville
104.9	WYSH, Clinton; WNFM, Dayton;WALR, Union City; WVWV, Waverly
105.5	WOWE, Chattanooga; WYTM, Fayetteville; WBNT, Oneida; WTPR, Paris; WSMT, Sparta
Class B and C	
88.5	WTTU, Cookeville
88.9	WMBM, Chattanooga
89.1	WDNX, Savannah
89.5	WETS, Johnson City
89.7	WDYN, Chattanooga
90.3	WEVL, Memphis
90.7	WSMC, Collegedale
91.1	WKCS, Knoxville
91.5	WFHC, Henderson
91.9	WUOT, Knoxville
92.3	WDEF, Chattanooga; WKBJ, Milan
92.9	WZEZ, Nashville
93.3	WJIG, Tullahoma
94.9	WOFM, Greenville
95.5	WSM, Nashville
95.6	WLIV, Livingston
96.3	WMTS, Murfreesboro

Table III (Continued)

Channel	Station Call Letters and Location
96.5	WDOD, Chattanooga
97.1	WHRK, Memphis
97.5	WEZK, Knoxville
97.9	WSIX, Nashville
98.5	WKPT, Kingsport
100.3	WOKI, Oak Ridge
100.7	WQLS, Cleveland
101.1	KWAM, Memphis
101.5	WJCW, Johnson City
102.1	WSEV, Sevierville
102.7	WZXR, Memphis
102.9	WTCV, Shellyville
103.3	WKDF, Nashville
103.5	WBIR, Knoxville
104.1	WKIR, Jackson
104.5	WHIN, Gallatin; WQUD, Memphis
105.9	WEZI, Memphis; WLAC, Nashvile
106.5	WYNQ, Chattanooga
106.9	WKTA, McKenzie
107.3	WCOR, Lebannon

transmitter power, the height of the transmitting antenna and terrain formation. The FM signal blanks out interference from other stations better than the AM signal and the most important advantage is the freedom from static interference.

A Class A station authorized by the FCC is designed to render service to a relatively small community, city or town and the surrounding rural area. A Class A station is not authorized to operate with effective radiated power greater than 3 kilowatts and the coverage generally does not exceed that obtained from 3 kilowatts effective radiated power and antenna height above the average terrain of 300 feet.

The Class B or C station is designed to render service to a sizable community, city or town, or to the principal city or cities of an urbanized area and to the surrounding area. Class B and C stations have up to 50 kilowatts of effective radiated power and antenna height of no more than 500 feet.

II. TENNESSEE AM AND FM RADIO STATIONS

Tennessee has a total of 245 AM and FM licensed broadcast stations. This total excludes those that are associated with high schools, community colleges, prep schools and broadcast academies. Appendix A, Table XVII is a complete listing, beginning with market area, of all 245 radio stations.

Major Network Affiliation

Table IV shows that 122 stations have indicated affiliation with a major network for news and educational programming. ABC is the leading

Table IV. Tennessee Radio Stations Indicating Network Affiliation for News and Educational Programming

Stations Indicating Affiliation With A Major Network		Affiliate							
		ABC	CBS	Mutual Broad. Sys.	NBC	Tenn. Radio	Misc.	Comb. of 1 or More	No Indication
AM	(157)	27	7	9	6	8	2	13	95
FM	(88)	17	4	00	0	2	5	2	28
Total	(245)	44	11	9	6	10	7	15	123

network affiliate with 44 stations (27 AM and 17 FM); CBS has 11 stations (7 AM and 4 FM); Mutual Broadcasting System has 9, all AM stations and NBC claims 6 AM stations. The Tennessee Radio Network, which specializes in state events, has 11 stations (7 AM and 4 FM).

There were 15 stations that used a combination of more than 1 network information for programming (13 AM and 2 FM). There were 7 stations that used another source for news such as Delta Farm, Volunteer Network, National Press Radio, etc.

Major Program Format

Table V indicates that 207 stations have requested to the FCC for their station license a particular program format. County and Western is the most popular with 56 stations (46 AM and 10 FM); Middle-of-the-Road (MOR) has 38 stations (18 AM and 20 FM); Top 40 music has 20 stations (15 AM and 5 FM); Contemporary has 19 (12 AM and 7 FM); and Religious has 10 (8 AM and 2 FM).

Some of the stations will use a combination format to appeal to a variety of audiences in order to maintain listenership. Seventeen stations (15 AM and 2 FM) indicated this choice. Stations will adjust music types to fit their clientele such as: beautiful music, oldies, black, etc. There were 47 stations that did have their own specialized format (22 AM and 25 FM).

The music format of a station can be an immediate indication to the Extension personnel just who they are trying to appeal to and the approximate audience age. For example WOKI-AM and FM lists adult contemporary. The AM station is Class I and II Clear Channel; the FM is Class B and C.

Table V. Tennessee Radio Stations Indicating Program Format

Stations Indicating Program Format		Type of Format							
		Country and Western	Middle-of-the-Road	Top 40	Contemprary	Religious	Comb. of 1 or more	Misc.	No Indication
AM	(157)	46	18	15	12	8	15	22	21
FM	(88)	10	20	5	7	2	2	25	17
Total	(245)	56	38	20	19	10	17	47	38

Both have excellent coverage area. Audience appeal is to a younger group 18 to 34 years of age and they will maintain an upbeat for news, educational programming and advertising. Extension agents would want to provide short spots or 5 minute programs to appeal to the listenership of this station.

Special Programs

Fifty-four of the 245 radio stations had regularly scheduled special programs as shown in Table VI. These special programs included: (1) farm information; (2) black programming; (3) religious; (4) music; (5) sports and (6) talk shows. Of the 54 stations agriculture and black programming were the most popular. Agriculture had 22 stations (18 AM and 4 FM) and black had 8 AM stations. Fifteen stations had a combination of more than one special program (11 AM and 4 FM). The other types of special programming accounted for 9 stations (7 AM and 2 FM).

Special programming by a station is another good indication to Extension personnel of the interest of the station. Often special events or additional air time can be obtained where a station has an indicated interest.

III. AGRICULTURE PROGRAMS BY EXTENSION PERSONNEL AND OTHER AGENCIES

The University of Tennessee Institute of Agriculture personnel and agriculture related agencies provide continuously radio stations with information in the form of news events, educational material and events. Stations use this information as regular scheduled programming or to fill

Table VI. Tennessee Radio Stations Indicating Time for Special Programming

Stations Indicating Special Programming		Type of Special Programming				
		Agriculture	Black	Combination	Miscellaneous	No Indication
AM	(157)	18	8	11	7	113
FM	(88)	4	0	4	2	78
Total	(245)	22	8	15	9	191

in when time is available. Appendix B, Table XVIII illustrates how this applies to each radio station.

Extension Radio Programs

Appendix B, Table XVIII shows that there are two major sources of radio programming material that is provided on a weekly basis from Extension personnel. One source, the Institute of Agriculture, provides audio taped and script material of interest on a state level; the second, county employees, provide live or audio taped material that is of particular interest to the area in which the agent is presenting the material.

Institute of Agriculture Programs

Table VII shows by Extension Districts how the radio stations are using the prepared material sent by the University at their request. District I has 44 AM and FM stations in 21 counties. Sixteen of these stations use the Better Farming Program; 12 stations the Home and Garden Show; 5 the Brief Tape; and 11 stations are utilizing the script service.

District II has 43 AM and FM stations in 22 counties. Fourteen stations use the Better Farming Program and Home and Garden Program; 8 stations use the Brief Tape and 15 stations the script service.

District III has 33 AM and FM stations in 16 counties. Sixteen stations use the Better Farming Program; 10 stations the Home and Garden Show; 6 stations the Brief Tape and 4 stations the script service.

District IV has 19 AM and FM stations in 15 counties. Eleven stations use the Better Farming Show and Home and Garden Program; 5 stations the Brief Tape and 6 stations the script service.

Table VII. Stations in the Five Extension Districts Using University Related Programs

District	Number of Counties	Number of Stations	Institute of Agriculture Programs			
			Better Farming	Home & Garden	Farm & Home Brief Tape	Script
I	21	44	16	12	5	11
II	22	43	14	14	8	15
III	16	33	16	10	6	4
IV	15	19	11	11	5	6
V	21	46	16	13	15	22
Total	95	245	73	60	39	58

District V has 46 AM and FM radio stations in 21 counties. Sixteen use the Better Farming Program; 13 the Home and Garden Show; 15 the Brief Tape and 22 the script service.

Within the 95 counties of Tennessee there are 245 AM and FM broadcast commercial radio stations. Of this number there are 73 stations using the Better Farming Program; 60 the Home and Garden Show; 39 the Brief Tape and 58 the script service.

The Better Farming Program is a audio taped interview with an agriculture specialist or researcher discussing topics of concern by the University and producers within the state. The program is 10 to 12 minutes with a prepared opening and closing. The University's Radio Service handles the distribution.

The Home and Garden Show also distributed through Radio Service includes two 5-minute interviews involving agriculture researchers and specialists. Topics covered are of general interest. A stock opening and closing is added and a third feature by Radio Services. This program normally is aired in segments throughout a given week.

The Farm and Home Brief Tape is a weekly collection of 8 to 10, one voice spots. Average length is 60 seconds and deals with agriculture and general interest. This tape is prepared and distributed through the Communications Office.

The Radio Script Service is a weekly packet of 10 scripts prepared from specilists and researchers news releases. The packet is color coded to indicate type of news--Green-agriculture; Blue-agriculture news; Pink-consumer and Yellow-gardening. The script average length is 1:10.

County Extension Programs

Table VIII indicates that agents in the counties are using radio for distributing agriculture information. The most popular program lengths are 5, 10, 15 and 30 minutes. Some use spots of less than 2 minutes.

District I with 21 counties has 44 AM and FM stations. Fifteen stations use 5 minute programs; 6 use 10 minute programs; 7 use 15 minutes; 2 are using 30 minutes and 7 use spots.

District II with 22 counties has 43 AM and FM stations. Eleven stations use 5 minute programs; 4 use 10 minute programs; 13 use 15 minute programs and 2 stations use 30 minute programs and spots.

District III has 16 counties and 33 AM and FM stations. Eleven stations use 5 minute programs; 3 use 10 minute programs; 4 use 15 minute programs; 1 uses a thirty minute program and 7 use spots.

District IV has 15 counties and 19 AM and FM stations. Four stations use 5 and 10 minute programs; 11 the 15 minute program and 1 using the 30 minute program and spots.

District V has 21 counties and 64 AM and FM stations. Eleven stations use the 5 minute program; 2 the 10 minute program; 4 the 15 minute program; 1 the 30 minute program and 9 the spots.

Within the five Extension Districts there are 245 radio stations. Of this total: 52 are broadcasting 5 minute agent programs; 18 the 10 minute program; 39 the 15 minute program; 7 the 30 minute program and 26 the brief spots.

Agents within the counties are encouraged to use the mass media to release information quickly and accurately. Type of radio station, their

Table VIII. Stations in the Five Extension Districts Using County Extension Related Programs

District	Number of Counties	Number of Stations	County Extension Programs				
			5 Minute	10 Minute	15 Minute	30 Minute	Brief Spots
I	21	44	15	6	7	2	7
II	22	43	11	4	13	2	2
III	16	33	11	3	4	1	7
IV	15	19	4	4	11	1	1
V	21	46	11	2	4	1	9
Total	95	245	52	18	39	7	26

program format and audience appeal is the best indication for determining type and length of program. For some the 5 minute program is best, for others the 15 minute regularly scheduled program is best received.

Other Sources of Agriculture Programming

There are many sources of agriculture information that are released weekly to radio stations. This is handled through local agents or by a taped audio service. U.S.D.A., The Federal Land Bank, Soil Conservation Service and Production Credit are agencies that provide free information to stations and is used at will.

Other types of agriculture programming require that the station subscribe to the service. These are state wide networks or within an area of several states.

Appendix B, Table XVIII indicates by market area and station the type of additional agriculture programming that they use.

Agriculture Programs through Subscribership

Table IX lists by market area and station those programs that the station subscribes to for agriculture information within the two state networks--Tennessee Radio Network and Tennessee Agri Net. The Tennessee Radio Network has 27 stations that subscribe to one or both of their agriculture programs. Twenty-four stations use Accent Agriculture, a morning program and 19 stations use the Mid-Day Farm Report.

The Tennessee Agri Net has a total of 16 stations using their services. Of this total 14 are connected with schedule A and two with schedule B.

Table IX. Tennessee Stations Using Agriculture Programming from State Networks

Market Area	Station	Tennessee Radio Network		Tenn. Agri. Net	
		Accent Agriculture	Mid-Day Farm Report	"A"	"B"
Athens	WYXI	6:16	12:45		
Bolivar	WVST-FM			X	
	WBOL-AM			X	
Bristol	WOPI-AM		12:55		
Brownsville	WBHT-AM	7:30	12:45		
	WTBG-FM	7:30	12:45		
Camden				X	
Collierville	WMSO-AM	6:15			
Crossville	WCSV-AM	6:15			
Dickson	WDKN-AM/FM	5:15			
Dyersburg	WTRO-AM	6:15	11:40	X	
	WASL-FM	6:15	11:40	X	
Fayetteville	WIXC-AM	6:20	12:20		
Franklin	WAGG-AM	6:15			
Elizabethon	WIDD-AM/FM				X
Henderson	WHHM-AM			X	
Humboldt	WHMT-AM	7:15	11:35	X	
Huntingdon	WJPJ-AM		11:35	X	
Jackson	WDXI-AM	5:15			
Jefferson City	WJFC-AM				X
LaFayette	WEEN-AM	6:15	12:35		
Lenior City	WBLC-AM	7:15			

Table IX (Continued)

Market Area	Station	Tennessee Radio Network		Tenn. Agri. Net	
		Accent Agriculture	Mid-Day Farm Report	"A"	"B"
Lexington	WDXL-AM	6:15	11:45	X	
Madisonville	WKYZ-AM	6:15		X	
McMinnville	WAKI-AM		11:35		
Milan	WKBJ-AM/FM	6:15	12:35	X	
Memphis	WMZM-AM	6:15			
Rogersville	WRGS-AM	6:15			
Shelbyville	WHAL-AM	6:15	11:35		
	WTCV-FM	7:15	12:35		
Springfield	WDBL-AM/FM	5:15	12:15		
Tullahoma	WBGY-AM			X	
Waynesboro	WAAN-AM		12:20		
Winchester	WCDT-AM			X	

The Tennessee Radio Network has its main headquarters in Nashville. They use a looping telephone hook-up system that ties into radio stations which subscribe across the state. The network maintains reporters at large that feed information into the system at scheduled times. They carry a variety of news programs that are broadcast at scheduled times. Two of their programs deal directly with agriculture. Accent Agriculture begins at 5:15 a.m. and Mid-Day Farm Report is heard during the noon hours. The program length is 5 minutes with time built-in for commercials. Both of these programs are sectionalized so that the information given is specialized for that area. Section A is west Tennessee; B is for middle Tennessee and C for east Tennessee.

The Tennessee Agriculture Network, more commonly referred to as Agri Net has some similarities to the Tennessee Radio Network. It is located in Nashville and uses the looped line hook-up. Agri Net however deals only with agriculture news. They have two program schedules--A and B. Schedule A begins at 6:05 a.m. until 5:35 p.m. There are eight programs broadcast daily alternating between 10 and 5 minutes. Topics included are: weather, market reports and advisory information.

Schedule B begins at 6:35 a.m. and goes until 6:35 p.m. There are eight programs broadcast daily alternating between 5 and 10 minutes. Topics covered are the same as Schedule A. The main difference between the two schedules is that B has more programs clustered around meal time when most individuals interested in agriculture would normally be taking a break from work schedules.

Radio Stations That Have Scheduled Agriculture Programming

Of the radio stations available in Tennessee there are 95 advertising market areas. These market areas have radio broadcasting stations that serve them with varied amounts of power, length of time for actual "On Air" and programming. Some market areas have only 1 station, while others such as Memphis proper have up to 16 broadcast stations.

Appendix B, Table XVIII shows that of the 95 market areas 91 stations are using some form of agriculture information for programming.

There are 34 stations that use special programming to provide and supplement their agriculture information.

There are 80 stations that use material from the University of Tennessee and 78 stations that have agents from the county doing regular scheduled programs. There are three markets that do not have any programming from Extension personnel; however, they do obtain some type of agriculture information from other sources.

It is interesting to note that 36 stations felt it important to include time for broadcasting agriculture information on their FCC license renewal. This ranged from 1 hour to 19 hours weekly. Extension personnel should be taking advantage of this available time.

CHAPTER V

FINDINGS OF THE STUDY IN REGARD TO THE TELEVISION AND CABLE TELEVISION SYSTEMS WITHIN TENNESSEE

The purpose of this chapter is to present the findings of the study in regard to the television and cable television systems within the state of Tennessee and how they can be of assistance to Extension in releasing agriculture information. This will be done under the following purpose-related topics:

1. Classification by the FCC of Tennessee television stations--commercial and noncommercial/educational.
2. Tennessee television stations using agriculture information prepared by Extension personnel.
3. Tennessee cable television system.
4. County electronic media availability in Tennessee as listed by Extension districts.

Comparisons and discussions are indicated to differentiate between the different types of television stations and cable systems to illustrate a way that Extension can utilize this electronic medium. Discussion includes what is currently being programmed by Extension personnel.

I. CLASSIFICATION BY FCC OF TENNESSEE TELEVISION STATIONS--COMMERCIAL AND NONCOMMERCIAL

Television is an electronic magic carpet that transports millions of persons each day to faraway places. It is a twentieth-century creation of the industrial and technological revolution that has transformed much of the world for the last two centuries, and its impact on our social, political and cultural life becomes more profound each year.

Television is considered the most pervasive medium known to modern man. The average American devotes more time to watching television--almost 7 hours daily (1: 274)--than to any other form of leisure time activity.

Five of every 7 television stations, and there are more than 950 stations in all, broadcast on the long established very high frequency (VHF) bands, using channels 2 through 13; and the remainder on ultra high frequency (UHF) bands, channels 14 through 83. Nine of every 10 homes receive UHF programs.

The Federal Communications Commission designates how many stations, commercial and noncommercial, can be assigned to a particular area. This is determined by the zones that have been established based on the signal strength and antenna height of the station allocated by the band frequency. Each station has a mean separation in order to avoid interference.

Tennessee Stations and Locations Approved By the Federal Communications Commission

The Federal Communications Commission has allocated a total of 39 broadcast television stations for the state of Tennessee in 16 market

areas. Table X shows a listing of these television stations by market area, allocation and designation as commercial or noncommercial. Not all of these stations are in operation or have been filed on for a building permit to the FCC for construction.

Table X shows that the FCC has allocated 13 of the 25 commercial stations for VHF and 12 stations for UFH. The noncommercial television stations, of which there are 14, 4 are allocated for VHF and 10 for UHF.

The UHF channels were added by the FCC in 1952 after it became evident that 12 VHF channels could not provide for near enough stations. UHF channels were not at first in great demand, though UHF does in fact have certain advantages. UHF is: (1) less subject to static and to "ghosts"--multiple images caused by reflected signals which arrive at the antenna a little later than the direct signal because of having traveled over a longer propagation path; (2) because its antennas are more highly directive than VHF, UHF tends to reject signals other than those they are adjusted to receive. The quality of the picture received from UHF stations equals that from VHF stations.

UHF channels on the other hand, do have limitations. (1) The high directivity of the UHF signals means that this coverage may be spotty--the signal can be cut off by buildings and terrain obstructions in the line-of-sight path between receiver and transmitter. (2) UHF signals are more readily attenuated by absorption and so require higher transmitting power and more sensitive receiving-antenna adjustment.

Commercial stations are intended for the purpose that the name implies, to provide a profit through commercial sales. Noncommercial stations are licensed only to nonprofit educational organizations upon a

Table X. Tennessee Television Stations and Locations Approved by the FCC

Market Area	Total Channels	Allocation UHF	Allocation VHF	Commercial	Noncommercial/ Educational
Athens	1	1	-	-	1
Chattanooga	5	2	3	4	1
Cookeville	1	1	-	-	1
Crossville	2	2	-	1	1
Fayetteville	1	1	-	-	1
Greenville	1	1	-	1	-
Jackson	3	2	1	2	1
Johnson City	2	1	1	1	1
Kingsport	1	1	-	1	-
Knoxville	5	3	2	4	1
Lexington	1	-	1	-	1
Memphis	7	3	4	5	2
Murfreesboro	1	1	-	1	-
Nashville	7	3	4	5	2
Sneedville	1	-	1	-	1
Total	39	22	17	25	14

showing that the proposed stations will be used primarily to serve the educational needs of the community; for the advancement of educational programs and to furnish a nonprofit and noncommercial television service.

Tennessee Television Stations in Operation

Tennessee has been allocated a total of 39 broadcast television stations by the FCC. Currently, Tennessee has 26 stations which are in operation in 11 of the 16 market areas. Table XI, gives a complete listing of the 26 television stations which includes: address, station call letters, channel number and affiliate.

The commercial television market is the largest, with 18 stations located in the major areas. Six stations are affiliated with ABC; 5 stations each with CBS and NBC and 2 television stations are listed as independents.

There are eight noncommercial stations, of which five are educational and three are designated independents.

Most commercial television stations are affiliated with one or more of the three major networks--The American Broadcasting Companies, Columbia Broadcasting System and The National Broadcasting Company. Well over 100 individuals and companies operate on an independent basis.

Each of the three major networks have approximately 200 affiliated stations. An affiliate contracts with a network for the exclusive right to broadcast in its coverage area 11 programs distributed by the network. It also has the right to refuse to broadcast any network program. Rejections occur when the station believes its audience will find a particular program objectionable, or when it prefers to use that block of air time to broadcast a program it originates or obtains from another source.

Table XI. Tennessee Television Stations in Operation--Commercial and Noncommercial

Market Area	Contact	Station	Channel	Affiliate
Commercial				
3300 Broad Street Chattanooga 38408	L. J. Roche	WDEF	12	CBS
900 Whitehall Road Chattanooga 37405	George Stevens	WRCB	3	NBC
Box 1150 Chattanooga 37401	Jane Grams	WTVC	9	ABC
Box 608 Crossville 38555	Mark Johnson	WCPT	55	Independent
346 Muse Street Jackson 38301	Gerry Quick	WBBJ	7	ABC
Box 1130 Johnson City 37602	Roy Park	WJHL	11	CBS
222 Commerce Street Kingsport 37660	Bob Ratcliff	WKPT	19	ABC
1306 N. Broadway Knoxville 37901	Jack W. Lee	WATE	6	NBC
1513 Hutchinson Ave. Knoxville 37917	Neal Branch	WBIR	10	CBS
Box 1388 Knoxville 37901	Dwayne Eastvold	WTVK	26	ABC
485 S. Highland Memphis 38111	D. A. Noel	WHBQ	13	ABC
1960 Union Avenue Memphis 38104	M. E. Greiner	WMC	5	NBC
Channel 3 Drive Memphis 38103	Charles Brakefield	WREG	3	CBS
474 James Robertson Pky Nashville 37219	Harold Crump	WTVF	5	CBS

Table XI (Continued)

Market Area	Contact	Station	Channel	Affiliate
441 Murfreesboro Rd. Nashville 37210	Brian Cobb	WNGE	2	ABC
Box 100 Nashville 37202	Tom Griscom	WSM	4	NBC
Box 90764 410 30th Ave. North Nashville 37209	Sandy Wheeler	WZTV	17	Independent
Box 1009 Bristol, Va. 24201	Robert Smith	WCYB	5	NBC
Noncommercial				
270 N. Crest Road Chattanooga 37404	Col. Jay Sadow	WRIP	61	Independent
4411 Ammicola Hwy Chattanooga 37406	Walter Alley	WTCI	45	Educational
Tn. State Board of Ed. Cookeville	Dick Castel	WCTE	22	Educational
Communication Ext. Bldg. Un. of Tn., Knoxville	Hop Edwards	WSJK	2	Educational
Tn. State Board of Ed. Lexington		WLJT	11	Educational
Memphis State University Memphis	Fred Willis	WKNO	10	Educational
4421 Central Avenue Charlotte, N. C. Memphis		WMTU*	30	Independent
Box 12555 Nashville 37212 Metrop. Board of Ed.		WDCN	8	Independent

*Not on air.

II. TENNESSEE TELEVISION STATIONS USING AGRICULTURE INFORMATION PREPARED BY EXTENSION PERSONNEL

The University of Tennessee Institute of Agriculture personnel provide television stations with agriculture information in the form of news and educational material. This information is used by both the commercial and noncommercial broadcast stations.

Tennessee Television Stations That Are Currently Using the "Ag Science In Action" Program

The University of Tennessee Institute of Agriculture provides a weekly 30 minute television program, entitled "Agriculture Science In Action," commonly referred to as "Ag Science," to interested television stations across the state. The program is produced by two of the communication state staff members in cooperation with researchers, educators and specialists within the Institute of Agriculture.

Table XII shows that there are 10 stations that are using the "Ag Science" program on a weekly basis. There are 6 commercial television stations and 4 noncommercial stations. The Nashville market area is the only leading major market within the state that does not carry the agriculture production.

Each station varies with the time that the program is shown. However, the four noncommercial educational stations prefer to broadcast the program in the evening whereas, the commercial stations use the program in the morning hours.

The "Ag Science in Action" program is video taped, in color, at a commercial station in Knoxville. The 30 minute production is produced on

Table XII. Tennessee Television Stations That are Currently Using the "Ag Science In Action" Program

Market Area	Station	Time of Telecast
Commercial		
Bristol	WCYB	Saturday 7:00 a.m.
Chattanooga	WRCB	Saturday 6:30 a.m.
Chattanooga	WTVC	Saturday 6:30 a.m.
Crossville	WCPT	Weekdays 6-6:30 a.m.
Jackson	WBBJ	M-W-F 7:45 a.m.
Knoxville	WBIR	Saturday 7:00 a.m.
Noncommercial		
Cookeville	WCTE	Thursday 6:00 p.m.
Knoxville	WSJK	Sunday 10:00 a.m.
Lexington	WLJT	Thursday 6:00 p.m.
Memphis	WKNO	Thursday 6:00 p.m.

2 inch video tape of which there are three masters, and one master 3/4 inch video cassette. This is done in order to maintain quality and ease distribution.

Yearly production of "Ag Science in Action" varies between 35 and 40 first run productions. Since most of the stations that use the program have indicated they prefer scheduling the production on a 52-week basis, this allows for 12 to 15 re-runs. The re-runs are scattered throughout the year.

"Ag Science in Action" is a magazine format program consisting of three segments. This allows ease and flexibility so that the program can provide both agriculture and consumer information that will have wide audience appeal, as opposed to holding the attention of one small population sector.

County Extension Programs

County Extension personnel within the Tennessee counties that have a commercial television studio have found a variety of opportunities to use this form of mass media for providing updated agriculture and consumer information to the public. In most cases, as revealed in Table XIII, the type of information is generally in the form of a news feature or a guest spot on a variety program.

The news feature or "featurette" a portion of the morning, noon, evening or late news will vary in length from 30 seconds up to 3 minutes. The features that have proven to be most informative are those that are video taped on location. The information is reinforced by the addition of sight and sound with one or multiple voices. Video taping on location is accomplished by the use of portable taping equipment, most commonly

Table XIII. Tennessee Television Stations Using Agriculture Material Prepared by Extension Personnel

Market Area	Station	Occurrence	Type of Programming
Chattanooga	WRCB	Weekly	Five minutes of farm information
Crossville	WCPT	Occasionally	News feature
Jackson	WBBJ	Weekly	Agriculture information, up to 30 minutes
Knoxville	WATE	Occasionally	News feature
	WBIR	Occasionally	News feature
	WIVK	Occasionally	News feature
Memphis	WMC	Occasionally	News feature
Nashville	WNGE	Occasionally	News features and special programs
	WSM	Occasionally	News features and special programs
Bristol, Va.	WCYB	Occasionally	News features and special programs

referred to as "EJ" equipment, or electronic journalism. The 1/2 inch or 3/4 inch video cassette tape can be taken from the field to the production studio where it is prepared for the news by utilizing an editing process. Some "EJ" equipment allows for actual editing on location.

Table XIII, shows that two counties have regular programs that they do on a weekly basis, early morning, related to agriculture. The personnel in Chattanooga provide a 5 minute program and the Jackson personnel provide from 5 to 30 minutes of feature program material. The program in Jackson varies depending on the information to be presented and guests for the program. The experiment station at Jackson often provides specialists to help with the program.

Quite often county personnel will be invited to participate on regular scheduled variety programs to do a guest spot special feature. This may be to promote a county workshop, special program, or to clarify a recommended practice or concern to the people served by the television station market area.

III. TENNESSEE CABLE TELEVISION SYSTEM

Cable television is a system for carrying television signals by wire rather than transmitting them over the air. The wire used is a coaxial cable that can carry many different television channels simultaneously without interference.

Cable communications provides more television channels than broadcast television since it allows use of channels that are adjacent to each

other without signal interference. In addition to the portion of the spectrum allocated, cable systems can carry the frequencies that broadcast television cannot, plus cable systems can transmit FM radio signals.

Because cable television uses a municipal right-of-way, cable systems nearly always operate under a franchise from the local city, town or county.

Tennessee Cable Television System--Location, Franchise Area, Coverage and Channels

Appendix C, Table XIX is a listing of all currently operating cable television systems in Tennessee. To date there are 66 stations throughout the state with the first station originating in December 1951 to serve the Kingsport, Tennessee community and the youngest began transmitting in Dyer County, March 1974.

Cable systems serve communities in Tennessee. We find that the smallest community in the franchised area is Hollow Rock with 200 homes and the largest is Memphis with 300,000 homes. In the area served by the cable systems there are 8 systems that have 100 to 1,000 households; 14 systems that have 1,000 to 2,000 households; 21 systems that have 2,000 to 4,000 households; 11 systems that have 4,000 to 12,000 households and 11 systems that have more than 12,000 homes in their franchised area.

In relation to the number of subscribers for the various cable stations, Appendix C, Table XIX indicates that there are 22 stations that have from 100 to 1,000 subscribers; 19 systems that have from 1,000 to 2,000 subscribers; 12 cable systems that have from 2,000 to 4,000 subscribers; 4 systems that have from 4,000 to 8,000 subscribers; 3 cable

systems with 8,000 to 12,000 subscribers and 6 systems that did not indicate the number of subscribers.

Miles of coaxial cable that a cable television system has is not in direct proportion to the number of subscribers within the system. Cable systems are designed to help rural areas receive better coverage of the network stations and receive local community information. Miles of coaxial cable within a Tennessee system varies from 8 to 320 miles. There are 22 systems that have from 8 to 30 miles of cable; 24 systems that have 30 to 60 miles of cable; 6 systems that have from 60 to 100 miles of cable; 8 that have 100 or more miles and 6 systems did not indicate.

The FCC in issuing the channel allocations to the cable systems throughout the state has through the years granted all but three cable stations 12 channels. The channel allocation is based upon location of the cable system in regard to the market area it serves. Three different systems--Humboldt, Clinton and Knoxville--were assigned 9, 21 and 35 respectively.

Appendix C, Table XIX further indicates that 55 cable systems have available channels for use by the community for local origination programming or as a leased channel.

About 3,000 operating cable systems serve some 5,700 United States communities with another 1,689 franchises having been awarded to systems not yet operating. Most systems are located in small town and rural areas. Two-thirds of the cable systems have fewer than 2,000 subscribers; only 105 systems have more than 10,000 subscribers.

The Federal Communications Commission rules, as of March 31, 1972, permit all cable systems in the major market areas to bring in some

distant signals, plus they must offer new nonbroadcast services which include: (1) local programming, usually known as "cablecasting;" (2) leased channels for pay television and other services; (3) public access to a cable channel; (4) a channel for educational programming; (5) a channel for municipal services and (6) a capacity for two-way services, such as public opinion polling, that requires a return signal from the subscriber. Major market areas for Tennessee would include: the Bristol area, Chattanooga, Knoxville, Memphis and Nashville.

Tennessee Cable Systems That Have Channels and Video Equipment Available for Programming as Listed by Extension Districts

Table XIV indicates that in Tennessee, of the 66 cable television systems, there are 55 that do have unused channels that can be made available for use by the public to promote community affairs, cultural events, education programs or used as a leased channel.

Breaking down the availability of channels by Extension Districts we see that in District I, 25 of the 27 cables systems have unused channels; District II, 5 of the 7 cable systems have unused channels; District III, 4 of the 6 cable systems have unused channels; District IV, 3 of the 5 cable systems have unused channels and District V, 18 of the 21 cable systems have unused channels.

Although a cable television system has unused channels, this does not automatically indicate that they own video equipment for local programming. Table XIV shows that of the 55 cable systems that do have channels unused, only 13 have equipment of some sort. District I has 4 systems with equipment out of 27; District II has 1 system out of 7;

Table XIV. Tennessee Cable Systems that have Channels and Video Equipment Available for Programming as Listed by Extension Districts

Extension District	Total Systems	Available By Systems	
		Channels	Equipment
I	27	25	4
II	7	5	1
III	6	4	0
IV	5	3	0
V	21	18	8
Total	66	55	13

District III and District IV do not have any systems with equipment and District V has 8 systems out of 21 with equipment.

The FCC has granted the cable systems a number of channels for use in their respective community. The fact that these systems are not utilizing the unused channels can readily be explained by the cost factor involved in purchasing video production equipment. The FCC required up until the Spring of 1978 that all cable systems with subscribership of 3,500 would have to make available to its patrons video equipment for production purposes. This was to insure that these systems would have programming that would fit the need of providing information related to current events occurring within the community served by the cable system. With the change in the FCC law, most cable systems sold or donated the equipment to other stations or gave it to local high schools.

Appendix C, Table XIX, indicates that there are only 10 cable television systems in Tennessee that currently have subscribership of more than 3,500. Comparing this to the number of homes within the franchise area of the cable system we see that only 25 cable systems have more than 3,500 homes in the area. Consequently, the vast majority of cable systems did not have to have video production equipment available for public use or really anticipated that they would have had to in the future.

Tennessee Cable Television Stations That Have Local Program Origination and the Type of In-House Equipment

Table XV indicates that there are 13 cable television systems in Tennessee that do maintain some type of video production equipment. A telephone survey conducted early in 1978 revealed just what type of equipment was available at the cable company.

Table XV. Tennessee Cable Television Stations that have Local Program Origination and the Type of In-House Equipment

Cable Station	Type of Equipment
Atwood	1 color camera 1 black and white camera, stationary, automated
Bristol	1 3/4 inch video tape recorder, color
Dyersburg	2 color studio cameras 1 switcher
Gatlinburg	1 color studio camera 1 film/slide chain 1 switcher 1 3/4 inch video tape recorder, color
Jackson	2 color cameras 1 switcher 1 film/slide chain 4 3/4 inch video tape recorders, color
Johnson City	- feed direct to high school which has equipment
Knoxville	5 3/4 inch video color units 1 film/slide chain 1 1/2 inch video playback unit, black and white
Lewisburg	1 black and white camera 1 3/4 inch video tape recorder, color
Memphis	1 3/4 inch video tape recorder, color
Morristown	1 black and white camera 1 portable video tape recorder and camera
Mountain City	2 color studio cameras 1 switcher
Oak Ridge	1 color studio camera 1 Program Co-ordinator
Paris	1 1 inch video recorder for playback

The equipment in the majority of the stations is limited. That is, a station may have only a stationary camera or a 3/4 inch video playback unit. However, there was one cable station that was completely equipped for full color video production, but their studios had never been used. The reason was a lack of interest on the part of the community and the cost factor for doing a single program.

Of the 13 stations that did have equipment 9 did indicate that they use their equipment for programming, but on a limited basis. Use included covering elementary and secondary sport events, news programs and coverage of public meetings of political significance. The Oak Ridge Cable system does maintain one person to schedule and program their local origination programming and their schedule is extensive.

Five of the 13 stations that did have equipment for programming had subscriberships of less than 3,500. For example, Lewisburg has 558 subscribers and Mountain City 546.

The University of Tennessee and county Extension personnel do not supply these cable systems with agriculture or consumer information.

IV. COUNTY ELECTRONIC MEDIA AVAILABILITY IN TENNESSEE AS LISTED BY EXTENSION DISTRICTS

County Electronic Media Availability in Tennessee As Listed By County and District

Counties within Tennessee vary in size and population. Based on these two factors plus income of the area, this is generally considered the determining point for the establishment of electronic media outlets--radio, television stations or a cable system.

Appendix D, Table XX, is a complete listing of the 95 Tennessee counties by Extension Districts. After each county is listed the county seat and any other community within the county that has a electronic media outlet. What is available in each county--radio, television or cable system, is shown in separate columns within their appropriate headings.

Table XVI shows that within the 95 counties, there are 15 counties that do not have one radio station: District I--three counties; District II--two counties; District III--four counties; District IV--three counties and District V--three counties.

Although television stations number 26 in the state for both commercial and noncommercial/educational, they are limited in location to larger populated areas, for reasons of economics. Appendix D, Table XX shows the exact location of these stations, whereas, Table XVI indicates the location by county within the District. District I has three counties with television stations--Henderson, Madison and Shelby, for a total of seven stations--four commercial and three noncommercial. District II has one county, Dividson that has a television studio and there are five stations--four commercial and one noncommercial. District III has five stations all in Hamilton county--three commercial and two noncommercial. District IV has two television stations one in Cumberland County and one in Putman County--one commercial and one noncommercial. District V has three counties with stations--Knox, Sullivan and Washington for a total of seven stations--six commercial and one noncommercial.

Cable television systems are generally located where it is difficult for the average household to receive more than one station

Table XVI. County Electronic Media Availability in Tennessee as Listed By Extension Districts

District	Total Counties	Counties with Media Available		
		Radio	Television	Cable Systems
I	21	18	3	15
II	22	20	1	8
III	16	12	1	4
IV	15	12	2	5
V	21	18	3	17
Total	95	80	10	49

clearly. The community antenna system, therefore helps provide good viewing for the three major broadcast networks and leading independent stations. Based on this information it is reasonable to assume that there would be more of a need for cable systems in the mountain areas of Tennessee. District I has 15 out of its 21 counties equipped with cable systems; District II has 8 counties out of 22 with cable systems; District III only has 4 counties with cable out of 16 counties; District IV has 5 counties out of 15 that have a cable system and District V maintains 17 of 21 counties with at least one cable system in each county.

There are 13 counties in Tennessee that do not have any form of electronic media outlet; 28 counties list only one media source, generally radio; 46 counties have two electronic media outlets, normally radio and cable television and 8 counties have all three forms of available electronic media outlets.

It is interesting to note as listed in Appendix D, Table XX, that there are 18 counties that do not use any agriculture material prepared by the University of Tennessee. To date, however, 15 of these counties do not have radio stations and therefore cannot use the prepared audio tape packaged material; 3 counties do have stations--Hardin, Haywood and Marshall--but they elect not to utilize the available resource.

Electronic media outlets are available to the counties in Tennessee for use by Extension personnel. These outlets are excellent sources for keeping the public aware of the latest agriculture and consumer information so that we remain a more informed public.

CHAPTER VI

SUMMARY OF THE MAJOR FINDINGS, IMPLICATIONS AND RECOMMENDATIONS

I. PURPOSES AND SPECIFIC OBJECTIVES

The major purpose of this study was to establish what electronic mass media outlets are available in the counties of Tennessee and to investigate their potential use by Agriculture Extension Service personnel for the use of disseminating agriculture and consumer information.

Specific Objectives

Specific objectives of the study were as follows:

1. Establish what types of electronic mass media channels are available in the Tennessee counties.
2. To determine the classification and basic programming trends of the radio stations within the counties.
3. To locate the commercial and noncommercial broadcast television stations and the cable television systems throughout the state.
4. To identify agriculture programming that is being used by the electronic media outlets.
5. To determine where and how agriculture information could be utilized more effectively.

The study was conducted to establish what types of electronic mass media outlets are in the Tennessee counties and to identify what channels of communication were using agriculture information prepared by the University of Tennessee personnel. It was believed that knowing what

counties with certain media sources available for use coupled with the willingness of these outlets to utilize agriculture information, that meaningful, useful agricultural practices could be introduced to the listeners to create awareness and stimulate further interest for additional recommendations.

II. METHOD OF INVESTIGATION

Several methods were incorporated to establish the location of broadcast mass media outlets by counties within the state and to determine the usage of agriculture information that was prepared by the University of Tennessee personnel for these channels.

One method employed was to research through the recent Federal Communications Commissions license renewals, the *1977 Cablecasting Sourcebook* and *Broadcasting Yearbook*. This established the existence, classification and future availability of each broadcast medium by market areas.

A second method was a written survey sent to county agriculture Extension leaders whereby they established their utilization of available media in their county. They listed the stations, time and length of programs that their office did weekly for both radio and television.

The third method was to cross reference the radio mailing records of two University offices--the Office of Communications and the Department of Radio Services. This was to determine which broadcast radio stations are currently receiving the prepared agriculture material from the university.

A fourth method was personal visits to selected broadcast media outlets, radio and television, to obtain a reaction from the station manager or program director on the material being sent to their station.

Recommendations for improvement or changes were requested.

The final method of investigation was a telephone survey of all the cable television stations in the state, explicitly talking with the station manager. Information was obtained relating to: the size of their system; the type of video programming equipment for in studio use and local origination programming; and, would they be interested in programming that was prepared and sent to them by the university. A response was obtained from all station managers, but not necessarily in its entirety.

III. MAJOR FINDINGS

Major findings were classified and presented under headings related to the objectives of the study.

Tennessee Broadcast Commercial Radio Stations

A summary of some of the characteristics of the Tennessee radio stations includes the following findings:

1. There are a total of 245 broadcast radio stations--157 AM and 88 FM--in the state that are licensed for commercial purposes.
2. Within the 157 AM stations the FCC has classified them into the following categories: Clear Channel Class I station--WSM, Nashville; Class II, Clear channel station--11 stations; Regional Channels Classes III-A and III-B which serves a limited area and has reduced power during nighttime broadcast, 72 stations; Class IV, Local Channel, a highly restricted class, 33 stations; Class I and Class II Clear Channels, primary area, 40 stations.

3. The FCC has established clarification of FM channels into A, B and C categories defined by the area they serve, small, medium or large. There are 48 Class A FM stations and 40 Class B and C stations for a total of 88.
4. Eighty-two of the broadcast stations list an affiliation with a major network, of which ABC is most popular, to supply their listeners with national and international news.
5. The music format which establishes and identifies audience listenership, for Tennessee, Country and Western is the most popular. However, several stations indicated a combination of music formats to appeal to a variety of listeners.
6. Special programming was indicated by several Tennessee radio stations, of which agriculture information was the leader.

Agriculture Programming on Tennessee Radio Stations

A summary of the major findings related to the use of agriculture programming by Tennessee radio stations includes the following:

1. The Institute of Agriculture Communications Office, at the University of Tennessee, provides four different packaged agriculture information packets that are mailed weekly to participating radio stations. There are 73 stations using the Better Farming Program; 60 stations using the Home and Garden Show; 39 stations using the Farm and Home Brief Tape and 58 stations are using the script service.

2. Extension personnel in the counties make considerable use of the broadcast media. Their programs are either prerecorded or broadcast live providing information pertaining to the needs of their individual county. Programs vary in length from short spots to 30 minutes. There are 142 weekly broadcast programs.
3. The Tennessee Radio Network and The Tennessee Agri Net supply stations with agriculture information on a regular fee basis. There are 62 AM and FM stations that are affiliated with the Tennessee Radio Network and 17 broadcast stations that use The Tennessee Agri Net.
4. There are 95 advertising market areas within Tennessee that have at least one radio station. Of these market areas, 91 log agriculture programs that are obtained from a source such as: county Extension personnel; prepared audio taped packages from the Universtiy of Tennessee; the Tennessee Radio Network; and/or the Tennessee Agri Network.
5. There are 34 AM and FM radio stations that do use special programming to provide and supplement their agriculture information.
6. There are 15 market areas that do not use any form of prepared packaged material from the University of Tennessee and there are 17 markets that do not carry any type of county Extension programs.

Tennessee Broadcast Television Stations--Commercial and Noncommercial/ Educational

A summary of some of the characteristics of the Tennessee television stations includes the following findings:

1. The FCC has allocated a total of 39 broadcast television stations for the state. Twenty-five of these stations are designated commercial and 14 noncommercial.
2. Of the 39 television stations allocated there are only 26 stations that are in operation. Eighteen of these are commercial and eight are noncommercial/educational.
3. Within the commercial television stations that have news and general programming, there are six stations affiliated with ABC; five with CBS; five with NBC and two stations are listed as independents; whereas, the noncommercial stations in Tennessee are listed as five educational and three independents.

Agriculture Programming on Tennessee Television Stations

A summary of the major findings related to the use of agriculture programming by Tennessee television stations includes the following:

1. The "Ag Science In Action," a 30 minute color agriculture program produced by the Institute of Agriculture, is aired weekly by 10 stations--6 commercial and 4 noncommercial--in all major markets excluding Nashville.
2. Two commercial stations feature weekly agriculture programs that are prepared and presented by local Extension personnel. These stations are located in Chattanooga and Jackson.

3. Electronic Journalism, portable video taping equipment generally referred to as "EJ," has helped promote agriculture news. News featurettes ranging up to 3 minutes in length are shown by a majority of television stations during regularly scheduled news broadcasts.

Tennessee's Cable Television System

A summary of some of the characteristics of Tennessee's Cable television system includes the following findings:

1. Beginning in 1951, Tennessee started the first of its current 66 cable television systems.
2. Sixty-three of the cable systems have been allocated 12 channels for network programming, local programming and special programming. Three systems--Humboldt, Clinton and Knoxville--were assigned 9, 21 and 35 channels due to the size of the community they serve and the market area in which they were located.
3. Subscribership for the cable systems varies from 100 to over 12,000 based on the number of households within the franchised area served by the cable company.
4. Fifty-eight of the cable systems have available channels for use by the community for local origination programming.
5. Video production equipment that is maintained by the cable system is limited, due to the fact that it is not required and the cost of maintaining idle equipment is prohibitive. The majority of cable stations do have one fixed camera that

automatically scans weather, news, sports and community announcements.

6. Thirteen of the cable systems do have video production equipment, of which nine stations are doing some local programming on a limited basis. One system does have a program director.
7. The University of Tennessee does not supply the cable systems with any program material.

County Electronic Media Availability in Tennessee

A summary of the major findings related to available electronic broadcast media in the 95 Tennessee counties includes the following:

1. There are 15 counties that do not have one radio station: District I--three counties; District II--two counties; District III--four counties; District IV--three counties and District V--three counties.
2. District I has three noncommercial and four commercial broadcast television stations; District II has one noncommercial and four commercial stations; District III has two noncommercial and three commercial stations; District IV has one commercial and one noncommercial station and District V has one noncommercial and six commercial stations. There are 26 stations.
3. There are 66 cable television systems in Tennessee. There are 46 counties, however, that do not have one cable system. Most counties that do have a cable system actually have multiple systems.
4. Thirteen counties in Tennessee do not have any form of electronic media outlets; 28 counties list only one media

source; 46 counties have two sources--radio and cable systems; and 8 counties have all three electronic media broadcast outlets.

IV. IMPLICATIONS AND RECOMMENDATIONS

Based on the results of the study and the writer's experience and views, the following implications were made and recommendations suggested:

1. Based on the Federal Communications Commissions' classification for all broadcast radio stations in Tennessee and the music format indicated by the stations, a county Extension employee should be able to determine the best type and length of agriculture program that he should present to be most effective.
2. Where broadcast television stations are located within a county Extension personnel should take advantage of possible air time on news or special interest programs to promote special events, workshops and introduce recommended agriculture practices to the viewers.
3. The broadcast media creates awareness and stimulates interest; if used to advantage Extension personnel could establish a firm foundation as a credible source for agriculture information.
4. The majority of cable television systems in the state are not equipped to handle local origination programming even though the FCC has granted them an available channel for this purpose. Extension personnel would be wise to be aware of this media outlet so that if programming time becomes a reality they can utilize the source for special educational needs.

Recommendations for Further Study

1. A study should be done to determine public awareness and reaction of agriculture programming within the counties.
2. A study should be conducted regarding types of radio programs and their effectiveness.
3. A study should be done in regard to television programming and its effectiveness in relation to news spots vs. lengthy programs.
4. A study related to what cable stations want in the line of possible programming should be explored.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Agee, Warren K., Ault Phillip and Emery Edwin. *Introduction To Mass Communications.* New York: Harper and Row, Publishers, 1976.

2. Baer, Walter S. *Cable Television: A Handbook for Decision-making.* New York: Crane, Russak and Company, Inc., 1974.

3. Baer, Walter S. *Cable Television: Franchising Considerations.* New York: Crane, Russak and Company, Inc., 1974.

4. Bower, Robert T. *Television and the Public.* New York: Holt, Reinhart and Winston, Inc., 1973.

5. Buster, Cladue F. "Blueprint for a Total Telecommunications System," *Broadcast Management Engineering,* March 1970.

6. "Cable--Educational/Instructional TV Interfact Grows More Factious," *Broadcast Management Engineering,* October 1971.

7. Cable Television Information Center. *Educational Uses of Cable Television.* Washington, D. C.: The Urban Institute, 1974.

8. Cable Television Report and Order. 47 C.F.R. 76.251 (a)(5).

9. Carey, Joseph Hall. Cable TV: Its Impact Upon the Broadcast Industry As Seen By Tennessee Broadcasters and Cable TV System Operators." University of Tennessee, 1971. Unpublished thesis.

10. Carpenter, Polly. *Cable Television: Developing Community Services.* New York: Crane, Russak, and Company, Inc., 1974.

11. Chaffee, S. H. and McLeod, J. M. *Adolescent Television.* Washington, C. C., U. S. Government Printing Office, 1971, Vol. 3.

12. Efrein, Joel L. *Cablecasting Production Handbook,* Blue Ridge Summit, Pennsylvania: Tal Books, 1975.

13. Goodhardt, G. J., Ehrenberg, A. S. C. and Collins, M. A. *The Television Audience: Patterns of Viewing.* Lexington, Mass.: Lexington Books, D. C. Health and Co., 1975.

14. Gordon, George N. *Communications and Media.* New York: Hastings House, Publishers, 1975.

15. Head, Sydney W. *Broadcasting in America A Survey of Television and Radio.* Boston, Mass.: Houghton Mifflin Company, 1972.

16. Klapper, Joseph T. *The Effects of Mass Media.* New York, New York: Bureau of Applied Social Research, Columbia University, 1949.

17. Lazarsfeld, Paul F. and Kendall, Patricia L. *Radio Listening In America.* New York: Prentice-Hall, Inc., 1948.

18. LoSciuto, L. A. *National Inventory of Television Viewing Behavior.* Washington, D. C.: U.S. Government Printing Office, Vol. 4.

19. Lee, S. Young. *Status Report on Public Broadcasting 1973.* Washington, D. C.: U. S. Government Printing Office, 1975.

20. Macy, John, Jr., *To Irrigate a Wasteland.* Berkely, California: University of California Press, 1974.

21. McGarry, K. J. and Burrell, T. W. *Communication Studies.* Great Britain: Linnet Books and Clive Bingley, 1973.

22. McKenna, Joan. *Cable Television and the Future.* Berkely, California: Quantum Communications, Inc., 1974.

23. McLuhan, M. *Understanding Media: The Extensions of Man.* New York: McGraw-Hill, 1964.

24. Miller, George A. *Language and Communication.* New York: McGraw-Hill Book Co., 1951.

25. Myren, Delbert T. *Communications in Agriculture Development.* Mexico: Londres, 1965.

26. Neilsen, A. C. Company, survey found in *The Aspen Notebook: Cable and Continuing Education.* New York: Praeger Publishers, 1973.

27. Phillips, Mary A. M. *CATV a History of Community Antenna Television.* Northwestern University Press, 1972.

28. Read, Hadley. *Communication: Methods for All Media.* Urbana, Illinois: University of Illinois Press, 1972.

29. Rivkin, Steven R. *Cable TV: A Guide to Federal Regulations.* New York: Crane, Russak and Company, Inc., 1974.

30. Robinson, J. "Television and Leisure Time." *Public Opinion Quarterly,* 1969, 33, 210-22.

31. Rogers, Everett M. and Shoemaker, F. Floyd. *Communication of Innovations.* New York: The Free Press, 1971.

32. Ross, Leonard. *Economic and Legal Foundations of Cable Television.* New York: Columbia University, 1974.

33. Shafer, Jon. *Education and Cable TV: A Guide to Franchising and Utilization.* Stanford, California: ERIC Clearinghouse on Media and Technology, 1973.

34. Shapiro, Andrew O. *Media Access*. Boston, Mass.: Little, Brown and Company, 1976.

35. Snodgrass, William R. *Cable TV, An Action Guide*. Nashville, Tennessee, 1973.

36. Steiner, Gary A. *The People Look At Television A Study of Audience Attitudes*. New York: Alfred A. Knopf, 1963.

37. Steiner, Robert L. *Visions of Cablevision*. Cincinnati, Ohio: Stephen Wilder Foundation, 1972.

38. *Studies in Public Communication*. Chicago, Illinois: National Opinion Research Center, University of Chicago, 1962.

39. *Telecommunication*. Washington, D. C. The Office of the Federal Register National Archives and Records Service General Services Administration, Parts 70 to 79, October 1975.

40. *Television and Social Behavior*. Television in day-to-day life: Patterns of Use. U. S. Department of Health, Education and Welfare, 1971.

41. *Tennessee Extension Handbook*. Tennessee Agricultural Extension Service, USDA Cooperating, November 1962.

42. "The CATV--ETV Interfact," *Broadcast Management Engineering*, November 1970.

43. "TV Captures Extension Farm Audience," *Journal of Extension*, September/October 1978.

44. White, Llewellyn. *The American Radio History of Broadcasting: Radio to Television*. New York: Arno Press and The New York Times, 1971.

45. *Broadcasting Yearbook 1978*. Washington, D. C.: Broadcasting Telecasting Building, 1978.

46. *Broadcasting Cable Source Book 1977*. Washington, D. C.: Broadcasting Telecasting Building, 1977.

APPENDICES

APPENDIX A

Table XVII. Listing of All Tennessee Radio Stations--AM and FM--By Market Areas.

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
P. O. Box 127 Alcoa, 37701 Herman Petre	WAGE-AM	1470	-	1KW-D	-	-
P. O. Box 96 Ardmore 38449 Ed Hildreth	WSLV-AM	1110	-	1KW-D	C&W	-
P. O. Box 449 Athens 37303 W. M. Mathews	WLAR-AM	1450	CBS	1KW-D 250 W-N	MOR	2 hours weekly farm
14 Decatur Pike Athens 37303 Julia Frew	WYXI-AM	1390	ABC	500 W	C&W	-
Benton**	WBIN-AM	1540	-	250 W	-	-
Box 8085 Berry Hill Nashville 37207 Clarence Kilcrease	WVOL-AM	1470	ABC	5KW-D 1KW-N DA-N	Black	-
Box 191 Bolivar 38008 Bill Morrow	WBOL-AM	1560	ABC	250 W-D	Diver C&W	4 hours weekly farm
	WVST-FM	96.7	-	3KW	C&W	2 hours weekly farm

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format	Special Program
Box 438 Bristol 37620 Ray Tolar	WOPI-AM	1490	NBC	1KW-D 250 W-N	MOR C&W	-
Box 706 Bristol 24201 W. J. Tilley, Jr.	WKYE-AM	1550	ABC	1KW-D	Top 40	-
111 S. Wash. Ave. Brownsville 39012 Bill Pope	WBHT-AM	1520	-	250 W-D	Variety	-
	WTBG-FM	95.3	-	3KW	Black	-
Box 543 Camden 38320 Ron Lane	WFWL-AM	1220	ABC	250 W-D	C&W	20 hours weekly gospel
Box 508 Camden 38320 John Lathan	WRJB-FM	98.3	ABC	3KW	Top 40	10 hours weekly gospel and country
P. O. Box 179 Carthage 37030 Reggie Honey	WRKM-AM	1350	Tn Radio	1KW	Top 40	3 hour farm w
	FM	102.3		3KW	Contemp.	1 hour black w
Box 66 Centerville 37033 David Price	WHLP-AM	1570	-	1KW-D	C&W	
	WIKA-FM	96.7	-	3KW	Top 40 C&W	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
3300 Broad St. Chattanooga 37402 Donald Olson	WDEF-AM	1370	CBS	5KW-U DA-N	MOR	-
	FM	92.3	CBS	97KW	BfM	-
Box 4232 Chattanooga 37405 William Nash	WDOD-AM	1310	ABC	5KW-U DA-N	C&W	19 hour farm w
	FM	96.5	Tn Radio	100	C&W	
Read House Chattanooga 37402 W. S. Sanders	WDXB-AM	1490	NBC	1KW-D 250 W-N	MOR	-
1815 Union Avenue Chattanooga 37404 Marvin Easley	WDYN-FM	89.7	-	62KW	Rel. Ed.	-
Box 4704 Chattanooga 37405 R. H. Elliott	WGOW-AM	1150	-	5KW-D 1KW-N DA-N	Top 40	-
Bob Rilley	WYNQ-FM	106.5	-	100KW	BfM	-
1002 Am. Nat. Bank Chattanooga 37402 Dean Sippel	WMBW-FM	88.9	Audio News UPI	100KW	Rel. Ed.	-

Table XVII (Continued)

Media Market	Station	khZ/Mhz*	Affiliate	Power*	Format*	Special Program
3661 Brainerd Rd. Chattanooga 37411 Thomas L. Sneed	WMOC-AM	1450	Audio News APR	1KW-D 250 W-N	Rel. and Black	-
Box 5156 Chattanooga 37406 Fred Webb	WNOO-AM	1260	Mutual Black	1KW-D CP:5 KW-D	Black	-
270 N. Crest Rd. Chattanooga 30741 Jay Sadow	WOWE-FM	105.5	MBS	3KW	Diver.	-
Box 128 Church Hill 37642 Bettye Jo Creasy	WMCH-AM	1260	-	1KW-D	C&W Rel.	-
Box 724 Clarksville 37040 Jack Mayer	WDNX-AM	540	-	1KW-D	Contemp. Country	-
Box 648 Clarksville John Bailey	WJZM-AM	1400	-	1KW-D 250 W-N	Contemp.	-
Box 1059 Cleveland 37311 Clyde Thomason	WBAC-AM	1340	MBS	1KW-D 250W-N	-	1 hour black w

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 1189 Cleveland 37311 Jack Hoskins	WCLE-AM	1570	Audio News APR	1KW-D	Rel. C & W	1 hour farm w
Box 1189 Cleveland 37716 Joe Wilson	WQLS-FM	100.7	-	50KW	MOR	-
Box 329 Clinton 33716 J. F. Stair	WYSH-AM FM	1380 104.9	- -	1KW-D 3KW	C&W -	- -
Box 87 Collegedale 37315 Don Self	WSMC-FM	90.7	NPR	100KW	Class. Rel.	-
4554 Fleming Road Collierville 38017 Michael Carlisle	WMSO-AM	1590	ABC/E	500 W-D	C&W Gospel	-
Box 113 Columbia 38401 Jerry Twilla	WKRM-AM	1340	Audio News APR	1KW-D 250 W-N	Top 40	2 hours black w
Box 113 Columbia Sherry Baltzer	WKOM-FM	101.7	-	3KW	C&W	-

Table XVII (Continued)

Media Market	Station	khZ/Mhz*	Affiliate	Power*	Format	Special Program
Box 711 Columbia Earl Williford	WMCP-AM	1280	-	1KW-D	Diver.	-
Box 2707 Cookeville 38501 Stacey Mott	WHUB-AM	1400	CBS	1KW-D 250 W-N	Diver.	-
	FM	98.3	CBS	1.5KW	MOR	-
Box 635 Cookeville 38501 Larry Nunn	WPTN-AM	1550	-	250 W-D	C&W	-
	FM	94.3	-	3KW		
Box 5113 Cookeville 38501 Donald Caldwell	WTTU-FM	88.5	-	10 W	Contemp.	-
Box A/C Copperhill 37317 Robert Schwab	WLSB-AM	1400	Keystone	1KW-D 250 W-N	-	-
Box 299 Covington 38019 Royce Wilson Leonard Whiteley	WKBL-AM	1250	-	1KW-D	Top 40	Black 5 hour w
	WKBL-FM	93.5	Tn. Radio	3KW	C&W	Farm 2 hour w
Box 247 Cowan 37318 Wayne Thomas	WZYX-AM	1440	ABC/E	1KW-D	C&W	Farm 10 hour w

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Drawer W Crossville 38555 Fred Warren Dean	WAEW-AM	1330	MBS	1KW-D	All hit music	-
	WAEW-FM	99.3	-	3KW-D	-	-
Box 591 Crossville 38555 Mack Johnson	WCSV-AM	1490	ABC/E	1KW-D 250 W-N	Top 40 MOR	Farm 3 hours w
Box 290 Dayton 37321 Jack Pullin	WDNT-AM	1280	MBS, Vol Net Audio News	1KW-D	C&W	
	WDNT-FM	104.9	-	3KW	MOR	
Box 607 Dickson 37055 William Potts	WDKN-AM	1260	ABC/Keystone	1KW-D	-	C&W 40 hour w
	WTNQ-FM	102.3	-	3KW	-	-
Box 627 Dyersburg 38024 Robert Ward	WDSG-AM	1450	Delta Farm	1KW-D 250 W-N	C&W	- Farm 9 hours w
Box 100 Dyersburg 38024 Alvin Wood	WTRD-AM	1330	ABC/C	500 W-D	Top 40	Farm 10 hours w Black 4 hour w
	WASL-FM	100.1	-	3KW	C&W	-
Box 829 Elizabethon 37643 James Austin	WBEJ-AM	1240	-	1KW-D 250W-N	MOR	-

Table XVII (Continued)

Media Market	Station	khZ/Mhz*	Affiliate	Power*	Format*	Special Program
604 E. Elk Ave. Eliazbethon 37643 J. H. Lewis	WIDD-AM	1520	-	1KW-D 500 W	C&W	-
	WIDD-FM	99.3	-	3KW	-	-
Box 428 (Englewood) Chattanooga Sue Kean	WENR-AM	1090	UPI Audio News	1KW-D	MOR	-
Box 280 Erwin 37650 J. E. True	WEMB-AM	1420	ABC/E	5KW-D	C&W	Gospel 2 hour w
	WXIS-FM	103.9	-	3KW	Top 40	
Box L Etowah John Blair	WCPH-AM	1220	-	3KW	-	-
Not on air, Etowah	WMCC-FM	103.1	-	3KW	-	-
P. O. Box Fayetteville 37334 Ed Chapman	WEKR-AM	1240	MBS	1KW-D 250 W-N	- -	-
Box 757 Fayetteville 37334 Bill Malone	WIXC-AM	1140	ABC/1	1KW-D	Modern Co. Black	2 hours w
Box 717 Fayetteville 37334 Joe Young	WYMT-FM	105.5	ABC/FM	3KW	Top 40	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
950 Mallory Road Franklin 37064 William Ormes	WAGG-AM	950	-	1KW-D	Country	-
Box 1380 Franklin 37604 James Hayes	WIXO-AM	1380	MBS	5KW-D	Mod. C&W	-
	WIXO-FM	100.1	-	2.5KW	Oldies	-
Box 521 Gallatin 37066 Lee Raines	WAMG-AM	1130	-	250 W-D	C&W	
Hwy. 109 N. Gallatin 37066 William Buntin	WHIN-AM	1010	-	1KW-D	Top 40	-
	WHIN-FM	104.5	-	50KW	Oldies	-
Mt. Moriah Ext. Memphis (Germantown) Bill Thomas	WEEF-FM	94.3	ABC	3KW	MOR	-
Box 243 Greenville 37743 Ron Metcaff Ray Smith	WGRV-AM	1340	- -	1KW-D 250 W-N	Variety	Farm 6 hour w
	WOFM-FM	94.9	-	100 KW	C&W	
Box 737 Greenville Kenney Dearstone	WSMG-AM	1450	ABC/E	1KW-D 250 W-N	- C&W	Farm 2 hour w Sports 4 hour w

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 221 Harriman 37748 Lannis Yeary	WHBT	1600	Tn. Radio	5KW-D	MOR	-
Box 176 Hartsville 37074 Chester Davis	WJKM-AM	1090	ABC/1 & E	250 W-D	Variety	Big Band 1 hour w
Freed-Hardeman Box 472 Henderson 38340 David Spiceland	WFHC-FM	91.5	-	10W	Top 40	-
Box 203 Henderson 38340 Don Fenimore	WHHM-AM	1580	UPI Audio News	250 W-D	C&W	-
361 W. Main St. Hendersonville 37075 Robert Reich	WBYQ-FM	89.1	-	3KW	Contemp.	-
Box 2268 Hohenwald Bryan Lane	WMLR-AM	1230	ABC/E	1KW-D 250 W-N	MOR C&W	
Box 1190 Humboldt 38343 Darrell Boyd	WHMT-AM	1190	Tn. Radio	500 W-D	C&W	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
2606 E. End Dr. Humboldt 38343 James Welch	WIRJ-AM	740	ABC/C	250 W-D	Top 40	-
	WIRJ-FM	102.3	-	2.83KW	C&W	-
Hundingdon David Jordon		1530	-	1KW-D	-	-
Huntingdon Not on air yet	WPVG-FM	100.9	-	3KW	-	-
Box 3845 Murray Substation Jackson 38301 Jerome Glassman	WDXI-AM	1310	-	5KW-D 1KW-N DA-N	Contemp C&W	Farm 6 hours w Black 26 hours w
Box 2508 Jackson 38301 Thomas Maples	WJAK-AM	1460	NBC	1KW-D DA-D	Top 40	Farm 1 hour w Black 5 hour w
Box 1119 Jackson 38301 Jim Hoppers	WTJS-AM	1390	ABC/1/E	5KW-D 1KW-N DA-N	MOR	Black 2 hour w C&W 42 hour w
	WKIR-FM	104.1	-	100KW	AOR	
Box 130 Jamestown 38557 Howard Cravens	WCLC-AM	1260	-	1KW-D	-	-

Table XVII (Continued)

Media Market	Station	khZ/Mhz*	Affiliate	Power*	Format*	Special Program
Box 69 Jamestown 38556 Earl Howard	WDEB-AM WDEB-FM	1500 103.9	Tn Radio -	1KW-D, 500 W 20KW	C&W Gospel -	- -
Box 271 Jefferson City 37760 Wayne Roberts	WJFC-AM	1480	Tn Radio Audio News	500 W-D	Rel. C&W	Farm 8 h w
213 E. And. Johnson Jefferson City	WSBM-FM	99.3	-	3KW	Easy Listening	-
Box 210 Jellico 37762 Tim Zecchini	WJJT-AM	1540	-	1KW-D 500 W-Ch	C&W Contemp.	Gospel 25 h w
Box 1716 Johnson City 37601 Arthur Kelsey	WETB-AM	970	MBS	1KW-D	Contemp.	-
Box 21400 A E. Tn. St. Un. Richard Ellis	WETS-FM	89.5	NPR	70KW	Variety	Jazz 15 h w Black 6 h w
Box W Johnson City Rocky Stone	WJCW-AM WJCW-FM	910 101.5	CBS -	5KW-D 1KW-N DA-N 100 W	C&W Rock	- -
Box 5188 Johnson City Don Dale	WJSO-AM	1590	-	5KW-D	Contemp.	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 1369 Kingsport 37662 Phil Roberts	WGOC-AM	1090	-	1KW-D	C*W	-
Draw K Kingsport 37662 Ken Maness	WKIN-AM	1320	-	5KW-D	Top 40	-
222 Commerce St. Kingsport 37662 Robert Ratcliff	WKPT-AM WKPT-FM	1400 98.5	NBC ABC	1KW-D 250 W-N 95KW	MOR Top 40 Btfl. Mus.	- - -
1513 Hutchison Ave. Knoxville 37917 Neal Branch	WBIR-AM WBIR-FM	1240 103.5	CBS ABC	1KW-D 250 W-N 100KW	Contemp. Top 40	-
Box 3367 Knoxville 37917 Jim Ridings	WRJZ-AM	620	APR Audio News	5KW-U DA-N	Contemp. DA-N	-
Box 1388 Knoxville 37901 Harry Stephenson	WEZK-FM	97.5	APR Audio News	100KW	Good News	-
Box 10207 Knoxville 37919 James A. Dick	WIVK-AM	850	-	DA 50KW-D	C&W Contemp.	

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 281 Knoxville 37914 Willie Sanders	WJBE-AM	1430	-	1KW-D	Gospel	-
2509 Broadway Knoxville 37917 Lynn Davis	WKCS-FM	91.1	Fulton HS	310 W	Rock	-
Box 1870 Knoxville 37901 Daniel Shipp	WKGN-AM	1340	ABC/C	1KW-D 250 W-N	AOR	Rel. 1 hour w Jazz 1 hour w
1830 White Ave Knoxville 37916 Robert Gross	WKVQ-AM	1490	-	1KW-D 250 W-N	MOR	- -
Box 2269 Knoxville 37901 Marvin Thompson	WKXV-AM	900	-	1KW-D	Variety	Black 20 hour w
4400 Whittle Sp. Rd. Knoxville 37917 Peter Dreyer	WNOX-AM	900	-	1KW-U DA 1-N	Contemp.	-
Box 2310 Knoxville 37901 Harry Morgan	WSKT-AM	1580	MBS	5KW-D	Inspir.	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
232 Comm & Ext. Bldg. Knoxville 37916 Ray Shireley	WUOT-FM	91.9	NPR	100KW	Classical	-
Box 16 Lafayette Billie Speck	WEEN-AM	1460	Tn. News	1KW-D	Top 40	Farm 5 hour w
N. 5th St. LaFollette Elmer Longmire	WLAF-AM	1450	Keystone	1KW-D 250 W-N	MOR	-
120 N. Military Lawrenceburg 38464	WDXE-AM	1370	Keystone	1KW-D	C&W	-
Robin Mathis	WDXE-FM	95.9	-	3KW	-	-
Box 549 Lebanon 37087	WCOR-AM	900	APR Audio News	500 W-D	Top 40	
Jack Hendrichson	WCOR-FM	107.3		18KW	C&W	Gospel 16 hour w
Box 100 Lenior City Earl Lauderdale	WBLC-AM	1360	-	1KW-D	Rel.	-
Box 340 Lenior City	WLIL-AM	730	-	1KW-D	Variety	-
Arthur Wilherson	WLIL-FM	93.5	-	3KW	-	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 20 Lewisburg 37091 Louis Lingner	WJJM-AM	1490	MBS/ Keystone	1KW-D 250 W-N	C&W	-
	WJJM-FM	94.3		3KW	-	-
Box 170 Lexington 38351 Ben Enochs	WDXL-AM	1490	ABC/1 Keystone	1KW-D 250 W-N	C&W, MOR	Black 14 hour w
	WDXL-FM	99.3		3KW	-	-
Box 359 Livingston 38570 Richard Gillespie	WLIV-AM	920	-	1KW-D	C&W	-
	WLIV-FM	95.6	-	3KW	-	-
Box 4263 Lobelville Norris Hammond	WTJF-FM	94.3	ABC/C	3KW	Diver.	Farm 4 hours w
621 Grady Dr. Chatt. Lookout Mtn. William Benns	WFLI-AM	1070	-	50KW-D 1KW-N DA-2	Rock Contemp	-
Box 5236 Nashville Madison Casey Jenkins	WEND-AM	1430	MPS; APR Audio News	5KW-D 1KW-N DA-D	C&W	-
Hwy. 4118 Madisonville Jack Reynolds	WZZI-AM	1250	Tn. Radio	500KW-D	C&W	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 290 Manchester 37355 Russell Daniel	WMSR-AM	1320	-	5KW-D	C&W MOR	-
	WMSR-FM	99.7	-	18.8KW	-	-
Box 318 Martin 38237 Tony Youngblood	WCMT-AM	1410	-	1KW-D	C&W Diver.	Farm 1 h w Sports 20 h w
	WCMT-FM	101.7	-	3KW	Btfl.	Sports 25 h w
Box 607 Maryville 37801 Steve Corbett	WGAP-AM	1400	APR Audio News	1KW-D 250 W-N	C&W	-
Box 307 McKenzie 38201	WHDM-AM	1440	ABC/E	500 W-D	MOR	-
Box 279 McKenzie Richard Bennett	WKTA-FM	106.9	ABC/FM	7.1KW	Diver.	Black 2 h w Farm 1 h w
Box 409 McMinnville 37110 Tollye Wayne	WAKI-AM	1230	-	1KW-D 250 W-N	-	-
Box 759 McMinnville Franklin Brown	WBMC-FM	103.9		3KW	Easy L.	-
	WBMC-AM	960	APR Audio News	500 W-D	C&W	-
Box 12107 Memphis 38112 E. W. Bic	KWAM-AM	990	-	10KW-D DA	Rel.	-
	KWAM-FM	101.1	ABC/E	100KW	C&W	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 12045 Memphis 39112 Charles Scruggs	WDIA-AM	1070	Mut. Blk MBS	50KW-D 5KW-N, DA-N	Black	-
	WQUD-FM	104.5	ABC	100KW	Good Music	-
Box 2118 Memphis 38101 Dennis Batso	WEVL-FM	90.3	-	10 W	Diver.	-
5900 Poplar Ave. Memphis 38138 Dave Thomas	WEZI-FM	105.9	-	100KW	Btfl. Music	-
485 S. Highland Memphis 38111 Dick French	WHBQ-AM	560	UPI APR	5KW-D 1KW-N DA-2	Top 40	-
Box 69 Memphis 38101 Art Gilliam	WLOK-AM	1340	Mut. Blk	1KW-D 250 W-N	Black	-
1960 Union Ave. Memphis 38104 Donald Perris	WMC-AM	790	NBC	5KW-U DA-N	Country	-
	WMC-FM	99.7		300KW	Contemp Rock	-
Box 3584 Memphis 38103 Tom Krsk	WHRK-FM	97.1	ABC/FM	100KW 10KW-D	Diver.	-
	WMPS-AM	680	ABC/C	5KW-N,DA	Contemp.	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format	Special Program
Box 2098 Memphis 38101 Kurt Meer	WMQM-AM	1480	-	5KW-D	C&W Rel.	Farm 1 h w
Box 2099 Memphis 38101 Bill Williams	WREC-AM	600	CBS	5KW-U DA-N	MOR	Farm 1 h w
	WZXR-FM	102.7	CBS	98	AOR	
Mid City Bldg. 1331 Union Ave. Memphis 38104 Bill Thomas	WWEE-AM	1430	ABC/1	1KW-D	Talk	-
Box 230 Milan 38358 Bill Haney	WKBJ-AM	1600	-	1KW-D	C&W	-
	WKBJ-FM	92.3	-	42KW	MOR	-
Box 265 Milligton 38053 Steve Williams	WTNN-AM	1380	ABC/E	500 W-D	Gospel	-
Box 220 Morristown 37813 Howell Ashford	WCRK-AM	1150	MBS	1KW-D 500 W-N DA-N	-	-
Box 70 Morristown 37814 Don Crisp	WMTN-AM	1300	Audio News UPI	5KW-D	C&W	-
	WAZI-FM	95.9	-	460 W	MOR	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
1211 N. Church Mtn. City 37683 Paul Gobble	WMCT-AM	1390	-	500 W-D	C&W	Farm 6 h w
Box 1439 Murfreesboro 37130 W. Vogel	WGNS-AM	1450	-	1KW-D 250 W-N	Contemp.	-
Box 860 Murfreesboro 37130 G. L. Petty	WMTS-AM	810	-	5KW-D	C&W	-
	WMTS-FM	96.3	-	20KW	Contemp.	-
1617 Lebanon Rd. Nashville 37210 Bart Walker	WAMB-AM	1190	MBS	250 W-D	Big Band	-
	WZEZ-FM	92.9	-	100KW	Btfl. Music	-
1202 Stahlman Bldg. Nashville 37201 Bill Hayes	WKDA-AM	1240	CBS	1KW-D 250 W-N	C&W	-
	WKDF-FM	103.3	CBS	100KW	AOR	-
159 4th Ave. Nashville 37219 James Ward	WLAC-AM	1510	APR	50KW-U DA-N	Top 40	Black 20 h w
	WLAC-FM	105.9		100KW	MOR	
Box 2628 Uptown Station Nashville 37219 John Patton	WMAK-AM	1300	-	5KW-U DA-N	Contemp.	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Whitehall Bldg. W. End Ave. Nashville 37203 Hoyt Carter	WNAN-AM	1360	-	1KW-D	Gospel	-
441 Murfreesboro Rd. Nashville 37210 Doug Dickens	WSIX-AM	980	ABC/1	5KW-U DA-N	MOR	
	WSIX-FM	97.9	ABC/E	100KW	Metro	Country
Box 100 Nashville 37202 Len Hensel	WSM-AM	650	NBC	50KW-U	MOR Country	Farm 5 h w
	WSM-FM	95.5	ABC/FM	100KW		-
Box 12040 Nashville 37212 Gary Arnold	WWGM-AM	1560	-	10KW-D DA	Contemp.	Talk 5 h w
Knoxville Hwy. Newport 37821 Dwight Wilkerson	WLIK-AM	1270	-	5KW-D 500 W-N DA-N	Top 40 C&W	-
Box 3268 Oak Ridge 37830 David Harper	WATO-AM	1290	MBS	5KW-D 500 W-N DA-2	MOR	-
	WUUU-FM	94.3	-	2.45KW	MOR	-
114 Tulsa Road Oak Ridge 37830 John Pirkle	WOKI-AM	1550	Tn Radio	1KW-D	Contemp.	-
	WOKI-FM	100.3	-	100KW	Adult Contemp.	

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Rt. 2 Box 212 Olive Hill Savannah 38372 Albert Nielsen	WDNX-FM	89.1	-	1.5KW	Btfl. Music	Farm 1 h w
Box 370 Oneida 37841 Hillard Mattie	WBNT-AM	1310	-	1KW-D	C&W	-
	WBNT-FM	105.5	-		Top 40 Gospel	-
Box 700 Paris 38242 Van Dyke	WTPR-AM	710	-	250 W-D	MOR	-
	WTPR-FM	105.5	-	3KW	-	-
Box F Parsons 38363 Ralph Clenney	WTBP-AM	1550	-	500 W-D	MOR	-
Box 182 Pikeville 37367 Mel Matthews	WUAT-AM	1110	-	250 W	Modern Country	Farm 5 h w Rel. 15 h w
104 2nd St. Pulaski 38478 George Martin	WKSR-AM	1420	ABC/1	1KW-U DA-N	Talk MOR	Farm 3 h w
Box 361 Pulaski Charles Solomon	WMGL-FM	98.3	APR	3KW	MOR C&W	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 15608 Red Bank 37415 Roy Davis	WSIM-FM	94.3	-	3KW	Adult Contemp.	-
Box 410 Ripley 38063 Don Paris	WTRB-AM	1570	-	1KW-D	-	-
Burem Road Rogersville 37857 Philip Beal	WRGS-AM	1370	ABC/1	1KW-D	C&W	Black 1 h w Farm 2 h w
Box B Savannah 38372 Edith Strickland	WORM-AM	1010	ABC/E Tn Radio	250 W-D	-	-
	WORM-FM	101.7	-	3KW	-	-
Box 128 Selmer 38375 Mike Michael	WDTM-AM	1130	-	250 W-D	-	-
Box 192 Sevierville 37862 Hugh Trotter	WSEV-AM	930	-	5KW-D	MOR	-
	WSEV-FM	102.1	-	22KW	C&W -	-
Box 696 Shellyville 37160 Robert Gallaher	WHAL-AM	1400	ABC/E	1KW-D 250 W-N	MOR	-
	WTCV-FM	102.9	-	59KW	-	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 7 Shellyville Arthur Wilkerson	WLIJ-AM	1580	-	1KW-D	Variety	-
Rt. 1 Smithville 37166	WJLE-AM	1480	-	1KW-D	-	-
Kenneth Smith	WJLE-FM	101.7	-	3KW	-	-
11826 Backvalley Rd. Soddy Daisy 37379 George Hudson	WEDG-AM	1240	ABC/1	1KW-D 250 W-N	C&W	-
8318 Dayton Pike Soddy Daisy 37319 Alfred Dick	WCHH-AM	1550	-	1KW-D	Gospel	-
4207 Highland Dr. Soddy Daisy Hixon	WZDQ-FM	102.3	-	3KW	-	-
Box 8 S. Pittsburg 37380 Eaton Govan	WEPG-AM	910	Keystone	500 W-D	-	-
Rt. 8 Box 414 Sparta 38583	WSMT-AM	1050	-	1KW-D	Diver.	-
Tolley Tittsworth	WSMT-FM	105.5	-	3KW	-	-

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 237 Sparta Robert Gallaher	WUCR-AM	860	ABC/E	1KW-D	Top 40	-
Box 729 Springfield	WDBL-AM WDBL-FM	1590 94.3	Tn Radio UPI	1KW-D 3KW	C&W Soul	Rel. 10 h w -
Box 330 Sweetwater 37874 Scarbrough	WDEH-AM	800	-	1KW-D	Variety	-
	WDEH-FM	95.3	-	2.55KW	-	-
Box 95 Tazewell Floyd Turner	WNTT-AM	1250	-	500 W-D	-	-
Town House Off Bldg. Trenton 38382 Deian Courtney	WTNE-AM	1500	-	250 W	MOR C&W	-
Drawer C Tullahoma 37388 J. P. Newton	WJIG-AM	740	-	250 W-D	C&W Top 40	-
	WJIG-FM	93.3	-	100KW	MOR	-
Box 602 Union City 38261 Don F. Murray	WALR-FM	104.9	Tn Radio ABC/1	3KW	C&W	Gospel 15 h w Farm 3 h w

Table XVII (Continued)

Media Market	Station	khZ/MhZ*	Affiliate	Power*	Format*	Special Program
Box 687 Union City Verne A. Brooks	WENK-AM	1240	Keystone UPI	1KW-D 250 W-D	Top 40 MOR	Farm 6 h w
Box 100 Wartburg 37887 W. Carrigan	WECO-AM	940	-	1KW-D	C&W	-
Country Rd. Wartburg	WEQO-AM	1220	-	500 W-D	-	-
Box 415 Waverly 37185 Dean Buch	WPHC-AM WVRY-FM	1060 104.9	ABC/E APR -	1KW-D 3KW	C&W MOR	Farm 2 h w -
Box 386 Waynesboro 38485 Carl Swafford	WAAN-AM	1400	Tn Radio ABC/1	1KW-D	Top 40 MOR	C&W 36 h w Farm 10 h w
Box 340 Winchester 37398 Robert Bracken	WCDT-AM	1340	UPI Tn Radio	1KW-D 250 W-N	Variety	C&W 16 h w Farm 2 h w
Box 1540 Woodbury 37190 Hugh Trotter	WBRY-AM	1540	-	500 W-D	C&W Contemp.	-

*Terms are identified in Appendix legend. **Not on air yet.

LEGEND

khZ	Kilocycles
KW	Kilowatt
Mhz	Megacycles
W	Watt
h	hours
SH	Specified hours of operation
ST	Shares time with
U	Unlimited time
w	Weekly
ABC	American Broadcasting Company
ABC/C	American Broadcasting Company - Contemporary
ABC/E	American Broadcasting Company - Educational
ABC/FM	American Broadcasting Company FM network
ABC/I	American Broadcasting information network
CBS	Columbia Broadcasting System
NBC	National Broadcasting System
MB	Mutual Black
MBS	Mutual Broadcasting System
Tn Radio	Tennessee Radio Network
Audio News	Audio News Network
APR	American Press Radio
Keystone	Keystone News Network
NPR	National Press Radio

LEGEND (Continued)

D	Day
DA-D	Directional antenna, daytime only
DA-N	Directional antenna, nighttime only
DA-1	Directional antenna, day and night
DA-2	Directional antenna, with changing patterns, day and night
N	Night
Btfl. (Bfm.)	Beautiful music
Class.	Classical
Contemp.	Contemporary Music
C&W	Country and Western
Diver.	Diversified Music
Ed.	Educational
MOR	Middle-of-the-Road
Rel.	Religious

APPENDIX B

CRANES CREST

Table XVIII. Radio Stations in Tennessee That Have Some Agriculture Programming Scheduled

Media Market	Station	Special Program	Extension Agent Programs (weekly)					U.T. Programs (weekly)				Total in Hours	
			Spot	5 Min	10 Min	15 Min	30 Min	Better Farming	Home and Garden	Spot	Script	Agent	UT
Alcoa	WEAG-AM	-	-	-	-	-	-	-	-	x	-	-	1/2
Ardmore	WSLV-AM	C&W	-	-	-	-	-	x	x	-	x	-	1/2
Athens	WYXI-AM	Accent Ag and Mid-day Farm	-	-	-	x	-	x	-	x	-	1/4	1/2
	WENR-AM		x	-	-	-	-	-	-	-	x	1/4	1/4
	WLAR-AM	(2hr farm)*	-	14	2	-	-	x	x	-	x	3	3
Benton	WBIN-AM	-	-	-	-	-	-	x	x	x	x	-	3/4
Bolivar	WBOL-AM	Agri Net A (4 hrs ag)*	-	-	4	-	-	x	x	x	-	3/4	3/4
	WVST-AM	Agri Net A (2 hrs ag)*	-	-	-	-	-	-	-	-	-	-	-
Bristol	WOPI-AM	Mid-day Farm	-	-	-	2	-	-	-	x	x	1/2	1/2
	WCYB-AM	-	-	-	-	-	-	-	-	-	x	-	1/4
	WOPI-AM	-	-	-	-	2	-	-	-	x	x	1/2	1/2
	WKYE-AM	-	-	-	-	-	-	-	-	-	x	-	1/4
Brownsville	WBHT-AM	Accent Ag and Mid-day Farm	-	-	-	-	-	-	-	-	-	-	-
	WTBG-FM	Accent Ag and Mid-day Farm	-	-	-	-	-	-	-	-	-	-	-
Camden	WRJB	Agri Net A Country	-	-	-	-	-	-	-	-	-	-	-
	WFWL	-	6	-	-	-	-	-	-	-	-	1/2	-
Carthage	WRKM-AM	(Farm 3 hr)*	-	-	-	1	-	-	-	-	-	1/4	-
Centerville	WHLP-AM	-	-	1	-	4	-	-	-	-	-	1/2	-
Chattanooga	WDEF-AM	-	7	-	-	-	-	-	-	-	-	1/4	-
	WDOD-AM	(Farm 19 hr)*	5	5	-	-	-	x	-	-	x	1	1/2
	WDXB-AM	-	7	-	-	-	-	x	x	-	-	1/4	1/2
	WMOC-AM	-	-	-	-	-	-	-	-	x	-	-	1/4
	WNOO-AM	-	5	-	-	-	-	-	x	-	x	1/4	1/2
Church Hill	WMCH-AM	-	-	-	-	-	-	x	x	x	x		
Clarksville	WDXN-AM	-	-	1	1	-	1	-	-	-	x	1	1/4
	WJZM-AM	-	-	-		1	-	x	-	-	x	1/4	1/2
Cleveland	WBAC-AM	-	-	6	-	-	-	x	x	x	-	1/2	3/4
	WCLE-AM	(Farm 1 hr)*	-	-	-	-	-	x	-	-	-	-	1/4

Table XVIII (Continued)

Media Market	Station	Special Program	Extension Agent Programs (weekly)					U.T. Programs (weekly)				Total in Hours	
			Spot	5 Min	10 Min	15 Min	30 Min	Better Farming	Home and Garden	Spot	Script	Agent	UT
Clinton	WYSH-AM	-	7	1	-	-	-	-	-	-	-	1/4	-
Collierville	WMSO-AM	Acc. Ag.	-	-	-	-	-	-	-	-	-	-	-
Columbia	WKRM-AM	-	-	-	-	1	-	x	x	x	x	1/4	1
	WMCP-AM	-	-	-		1	-	x	-	x	x	1/4	3/4
Copperhill	WLSB-AM	-	-	-	1	-	-	x	x	-	-	1/4	1/2
Cookeville	WHUB-AM	-	-	-	2	-	-	x	x	-	-	1/2	1/2
	WPTN-AM	-	-	-	8	-	-	x	x	-	-	1/2	1/2
Covington	WKBL-AM	Farm 2 hr	7	-	-	2	-	x	-	-	x	3/4	
Cowan	WZYX-AM	(Farm 10 hr)*	-	-	-	-	-	x	x	-	x	-	3/4
Crossville	WCSV-AM	Acc. Ag. (Farm 3 hr)*	-	-	-	-	-	x	x	x	-	-	3/4
Dayton	WDNT-AM	-	-	4	-	-	-	-	-	-	-	1/4	-
Dickson	WDKN-AM and FM	Acc. Ag.	-	-	1	2	-	x	x	x	x	1/2	1
Dyersburg	WTRO-AM	Acc. Ag. Mid-day Farm Agri. Net. A (Farm 10 hr)*	-	-	-	-	-	x	x	x	-	-	3/4
	WASL-FM	Same as WTRO	-	5	-	-	-	-	-	-	-	1/4	-
	WDSG-FM	(Farm 9 hr)*	-	6	-	-	-	x	-	x	-	1/4	1/2
Erwin	WEMB-AM	-	6	-	-	-	-	-	-	-	x	1/4	1/4
Elizabethon	WIDD-AM	Agri. Net. B	-	-	-	-	-	-	-	-	-	-	-
	WIDD-FM	Agri. Net. B	-	-	-	-	-	-	-	-	-	-	-
	WBEJ-FM	-	-	-	1	-	-	-	-	-	x	1/4	1/4
Etowah	WCPH-AM	-	6	6	1	1	5	-	-	-	-	3-1/2	-
Fayetteville	WYTM-AM	-	-	-	-	-	-	-	-	-	-	-	-
	WEKR-AM	-	-	6	-	1	-	-	-	-	-	3/4	-
	WIXC-AM	Acc. Ag. Mid-day Farm	-	-	-	-	-	-	-	-	-	-	-
Franklin	WAGG-AM	Acc. Ag.	-	2	-	-	-	x	x	-	-	1/4	1/2
	WIZO-AM	-	2	2	-	-	-	x	x	-	-	1/2	1/2
Gallatin	WHIN-AM	-	-	-	-	1	-	x	x	-	x	1/4	3/4
	WAMG-AM	-	-	-	-	-	-	x	-	-	-	-	1/4

Table XVIII (Continued)

Media Market	Station	Special Program	Extension Agent Programs (weekly)					U.T. Programs (weekly)				Total in Hours	
			Spot	5 Min	10 Min	15 Min	30 Min	Better Farming	Home and Garden	Spot	Script	Agent	UT
Greenville	WGRV-AM	(Farm 6 hr)*	9	-	1	-	-	x	-	x	x	1/2	3/4
	WSMG-AM	(Farm 2 hr)*	-	6	-	1	-	x	x	-	-	3/4	1/2
Harriman	WHB-AM	-	-	-	6	-	-	x	-	-	-	1-1/2	1/4
Hartsville	WJKM-AM	-	-	2	-	-	-	x	x	-	-	1/4	1/2
Henderson	WHHM-AM	Agri Net A	-	5	-	-	-	-	-	-	-	1/2	-
Hendersonville	WBYQ-FM	-	-	-	-	-	-	x	x	-	-	-	1/2
Hohenwald	WMLR-AM	(Farm 2 hr)*	-	1	-	-	-	-	x	x	x	1/4	3/4
Humboldt	WHMT-AM	Acc. Ag Mid-day Farm Agri Net A	-	-	-	-	-	-	x	x	x	-	3/4
	WIRJ-AM	-	-	-	1	-	-	-	-	-	-	1/4	-
Huntingdon	WJPJ-AM	Mid-day Farm Agri Net A	-	1	-	-	-	x	x	-	x	1/4	3/4
Jackson	WDXI-AM	Acc Agri (Farm 6 hr)*	5	-	-	-	-	-	-	-	-	1/4	-
	WTJS-AM	-	-	3	-	-	-	-	-	-	-	1/4	-
	WJAK-AM	(Farm 1 hr)*	-	5	-	-	-	-	-	-	-	1/2	-
	WKIR-AM	-	-	-	1	-	-	-	-	-	-	1/4	-
Jamestown	WCLC-AM	-	-	1	2	-	-	x	x	x	x	1/4	1
	WDEB-AM	-	-	4	-	-	-	x	x	-	-	1/4	1/2
Jefferson City	WSMB-AM	-	-	-	-	-	-	-	-	-	-	-	-
	WJFC-AM	Agri Net B (Farm 8 hr)	-	-	-	-	-	x	-	x	x	-	3/4
Jellico	WJJT-AM	-	-	-	-	-	-	x	x	-	x	-	3/4
Johnson City	WJCW-AM	-	2	-	-	-	-	-	-	x	-	1/4	1/4
	WJSO-AM	-	2	-	-	-	-	x	-	x	x	-	3/4
	WETB-AM	-	-	-	-	-	-	-	-	x	-	-	1/4
Kingsport	WKIN-AM	-	-	-	-	-	-	-	-	-	x	-	1/4
	WKPT-AM	-	-	-	-	-	-	x	x	-	-	-	1/2
	WGOL-AM	-	1	-	-	-	-	-	-	x	x	1/4	1/2
Knoxville	WRJZ-AM	-	7	-	-	-	-	-	-	-	x	1/4	1/4
	WBIR-AM	-	7	-	-	-	-	x	x	x	x	1/4	1
	WNOX-AM	-	7	-	-	-	-	-	-	x	x	1/4	1/2
	WJBE-AM	-	7	-	-	-	-	-	-	-	x	1/4	1/4
	WIVK-AM	-	7	-	-	-	-	-	x	-	x	1/4	1/2
	WKXV-AM	-	-	-	-	-	-	-	-	-	-	-	-

Table XVIII (Continued)

Media Market	Station	Special Program	Extension Agent Programs (weekly)					U.T. Programs (weekly)				Total in Hours	
			Spot	5 Min	10 Min	15 Min	30 Min	Better Farming	Home and Garden	Spot	Script	Agent	UT
Lafayette	WEEN-AM	Acc. Ag Mid-day Farm (5 hr. Farm)*	-	-	-	-	-	-	-	-	-	-	-
Lenior City	WBLC-AM	Acc. Ag.	-	-	5	-	-	-	x	-	-	1	1/4
	WLIL-AM	-	-	-	-	1	-	x	x	-	-	1-1/4	1/2
Lexington	WDXL-AM	Acc. Ag. Mid-day Farm Agri. Net. A	-	-	-	1	-	x	x	-	-	1/4	1/2
Livingston	WLIV-AM	-	-	-	-	3	1	x	x	x	x	1-1/4	1
Lawrenceburg	WDXE-AM	-	-	-	-	6	6	-	-	-	-	3	-
Lebanon	WCOR-AM	-	-	3	-	-	-	-	-	-	x	1/4	1/4
Madisonville	WKYZ-AM	Acc. Ag.	5	6	-	-	-	x	-	-	-	1/2	1/4
	WZZI-AM	Acc. Ag.	-	-	-	-	-	-	-	-	-	-	-
Manchester	WMSR-AM	-	-	4	-	-	-	x	x	x	-	1/2	3/4
Martin	WCMT-AM	(Farm 1 hr)*	-	5	-	-	-	x	x	-	-	1/2	1/2
Maryville	WGAP-AM	-	-	-	-	-	-	-	-	-	x	-	1/4
McKenzie	WHDM-AM	-	-	2	-	-	-	x	x	-	x	1/4	3/4
	WKTA-FM	-	-	-	-	-	-	x	x	-	-	-	1/2
McMinnville	WAKI-AM	Acc. Ag.	-	-	-	-	-	x	x	-	-	-	1/2
Memphis	WMZM-AM	Acc. Ag.	-	-	-	-	-	-	-	-	-	-	-
	WMC-AM	-	-	-	-	-	-	-	x	x	-	-	1/2
	WREC-AM	(Farm 1 hr)*	8	-	-	-	-	-	-	-	x	-	1/4
	WMPS-AM	-	-	6	-	-	-	x	x	-	x	1/2	1/4
	WDIA-AM	(Farm 1 hr)*	-	-	6	6	-	x	x	-	-	1/4	1/2
	WWEE-AM	-	5	-	-	-	-	-	-	-	-	1/4	-
	WMOM-AM	(Farm 1 hr)*	-	-	-	-	-	-	-	-	x	-	1/4
	WHBQ-AM	-	-	-	-	-	-	x	-	-	-	-	1/4
Milan	WKBJ-AM	Acc. Ag Mid-day Farm Tn Agri Net A	-	3	-	3	-	-	-	-	x	1	1/4
Morristown	WCRK-AM	-	-	5	-	-	-	x	-	-	x	1/4	1/2
	WMTN-AM	-	6	1	-	-	-	x	x	-	-	1/4	1/2
Mountain City	WMCT-AM	(Farm 6 hr)*	-	-	-	3	-	x	x	-	-	3/4	1/2

Table XVIII (Continued)

Media Market	Station	Special Program	Extension Agent Programs (weekly)					U.T. Programs (weekly)				Total in Hours	
			Spot	5 Min	10 Min	15 Min	30 Min	Better Farming	Home and Garden	Spot	Script	Agent	UT
Nashville	WSM-AM	(Farm 5 hr)*	7	-	-	-	-	-	x	-	x	1/4	1/2
	WSIX-AM	-	-	-	-	-	-	-	x	-	-	-	1/4
	WMAK-AM	-	-	-	-	-	-	x	x	-	x	-	3/4
	WNAH-AM	-	-	-	-	-	-	-	x	-	-	-	1/4
	WVOL-AM	-	-	-	-	-	-	-	-	-	x	-	1/4
	WAMB-AM	-	-	-	-	-	-	-	x	-	-	-	1/4
Newport	WLIK-AM	-	-	9	-	-	-	x	x	x	x	3/4	1
Oak Ridge	WOKI-AM	-	-	-	-	-	-	-	-	-	x	-	1/4
Oneida	WBNT-AM	-	-	-	-	1	-	-	-	-	-	1/4	-
Paris	WTPR-AM	-	-	-	-	3	-	x	x	-	-	3/4	1/2
Parsons	WTBP-AM	-	1	-	-	-	-	x	-	-	x	1/4	1/2
Pulaski	WKSR-AM	(Farm 3 hr)*	-	-	6	-	-	-	-	-	-	1	-
Pikeville	WUAT-AM	(Farm 5 hr)*	-	-	-	-	-	x	x	x	-	-	3/4
Ripley	WTRB-AM	-	-	10	-	-	-	-	-	-	x	1/4	1/4
Rockwood	WOFE-AM	-	-	5	-	-	-	x	x	-	-	1/4	1/2
Rogersville	WRGS-AM	Acc. Ag. (Farm 2 hr)*	-	3	-	-	-	x	-	x	x	1/4	3/4
Savannah	WDNX-AM	(Farm 1 hr)*	-	1	-	-	-	x	-	-	-	1/4	1/4
Sparta	WSMT-AM	-	-	5	-	-	-	x	x	-	x	1/2	3/4
	WUCR-AM	-	-	5	-	-	-	-	x	-	-	1/2	1/4
Selmer	WDTM-AM	-	-	-	-	3	-	x	x	-	-	3/4	1/2
Sevierville	WSEV-AM	-	-	-	2	-	-	x	x	-	-	1/2	1/2
Shellyville	WHAL-AM	Acc. Ag. Mid-day Farm	-	1	-	1	-	-	-	-	-	1/4	-
	WTCV-FM	Mid-day Farm	-	-	-	-	-	-	-	x	x	-	1/2
	WLIJ-AM		-	-	-	4	-	x	-	-	-	1	1/4
Smithville	WJLE-AM	-	-	-	-	1	-	x	x	-	-	1/4	1/2
S. Pittsburg	WEPG-AM	-	-	4	-	-	-	-	-	-	-	1/2	-

Table XVIII (Continued)

Media Market	Station	Special Program	Extension Agent Programs (weekly)					U.T. Programs (weekly)				Total in Hours	
			Spot	5 Min	10 Min	15 Min	30 Min	Better Farming	Home and Garden	Spot	Script	Agent	UT
Springfield	WDBL-AM and FM	Acc. Ag Mid-day Farm	-	-	-	3	-	x	-	-	-	3/4	1/4
Sweetwater	WDEH-AM	-	-	6	1	1	-	x	-	-	-	1	1/4
Tazewell	WNTT-AM	-	-	5	-	-	-	-	-	x	x	1/2	1/2
Trenton	WTNE-AM	C&W	occ	-	-	-	-	-	-	-	-	-	-
Tullahoma	WBGY-AM	Ag Net A	-	-	-	-	-	x	-	-	-	-	1/4
Union City	WENK-AM	(Farm 6 hr)*	-	4	-	-	-	x	-	x	x	1/2	3/4
	WALR-FM	(Farm 3 hr)*	-	2	-	-	-	-	-	-	-	1/4	-
Waverly	WPHC-AM	(Farm 2 hr)*	-	-	-	1	-	x	x	-	x	1/4	3/4
Waynesboro	WAAN-AM	Mid-day Farm Ag. Net. A (Farm 10 hr)*	-	5	-	-	-	-	-	x	-	1/2	1/4
Winchester	WCDT-AM	Ag. Net. A (Farm 2 hr)	-	-	-	-	-	-	-	-	-	-	-
Woodbury	WBRY-AM	-	occ	-	-	2	-	x	x	x	x	1/2	1

*Noted on the station FCC license renewal.

APPENDIX C

CRANES @ CREST

Table XIX. Tennessee Cable Television System--Location, Franchise Area, Coverage and Channel Allocation

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Athens Athens Cable Co. Box 421 37303	3/67	3,800	1,047	60	12	-
Atwood Clear Vision Box 3007 Meridian, Miss.	11/71	1,040	275	10	12	4
Bolivar Bolivar Cable Co. 529 Janet Rd. 38003	-	6,674	-	-	12	1
Bristol Sammons Comm. Inc. Box 768 37620	6/65	13,500	4,910	165	12	1 shared
Bruceton Clear Vision Box 3007	3/72	1,429	410	15	12	4 unused
Camden Camden TV Cable Co. 39-1/2 N. Court Sq.	9/69	1,800	989	29	12	1 available
Clinton Clinton Cable Box 9323 Knox.	-	4,794	-	-	21	-

Table XIX (Continued)

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Columbia FNI Comm. Inc. 216 N 8th St. 38401	/68	21,471	1,205	48	12	1 automated
Cookeville FNI Comm. Inc. Box 851 38501	9/68	16,078	3,595	97	12	1 automated
Crossville Crossville Cable Box 608 38555	-	5,381	-	-	12	-
Dandridge Univ. Amp. Inc. 101 Bisbee Rd. Bisbee, Ariz. 85603	-	1,270	-	-	12	-
Decaturville Warner Cable Decaturville	/67	2,500	846	18	12	5 unused
Dyer N. Gibson CATV 229 N. Main St.	3/74	2,000	1,375	43	12	3 unused
Dyersburg Cablecom-Gen. Box 888 38024	4/67	15,000	3,737	59.5	12	1 automated 1 local orig. 1 used

Table XIX (Continued)

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Elizabethon Sammons Comm. B. 1737 Johnson City	/63	7,000	2,115	101	12	1 automated
Erwin Warner Cable	10/54	4,881	1,799	45	12	1 automated 2 unused
Etowah TV Cable Co. Box 421 Athens 37303	5/70	1,800	637	34	12	1 automated
Gatlinburg Ultra Comm.	/52	2,500	1,340	45	12	1 origination
Gleason Clear Vision	6/71	1,302	335	10	12	4 unused
Greenville Warner Cable	8/65	16,000	2,677	85	12	2 unused
Greenfield Clear Vision	11/71	750	420	10	12	5 unused
Harriman Harriman CATV Box 634 37748	1/66	3,150	1,812	45	12	1 automated

Table XIX (Continued)

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Henderson Cable 12 Natchez Trace Lexington 38351	11/69	1,090	769	15	12	6 available
Hollow Rock Clear Vision McKenzie 38201	1/74	200	146	10	12	4 unused
Humboldt Humboldt Cable Co. E. End Dr. 38343	6/70	3,400	1,700	55	9	1 other
Hundingdon Clear Vision	11/69	1,400	1,205	25	12	1 unused
Jackson Jackson Comm. Ant. Box 3370	11/68	20,000	8,437	184	12	1 unused
Jellico Jellico Cable Box 508 37762	7/52	1,298	518	13	12	5 unused
Johnson City Sammons Commun. Box 1737 37601	/52	14,000	5,932	140	12	1 shared

Table XIX (Continued)

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Kingsport Warner Cable 235 E. Charlemont	12/51	20,000	11,599	320	12	1 shared
Knoxville Athena Cablevision	4/75	20,409	6,932	183	35	1 leased
LaFollette E. Tn. Cable and TV Box 69	9/66	2,932	1,798	48	12	3 unused
Lewisburg WSML Cable Box 17	4/74	3,100	558	42	12	1 local
Lexington Clear Vision	2/66	1,800	1,541	30	12	1 access 1 unused
Linden Tn. Valley Video Box 111 Collinwood 38450	12/72	1,373	196	9	12	1 automated
Livingston Tenn. Cable Box 69	5/66	1,201	579	21	12	4 unused
Loretto Loretto Cable TV 3rd Ave.	/70	300	215	12	12	4 unused

Table XIX (Continued)

Cable Station	Date Started	Homes Area	Sub-scribers	Miles of cable	Channels	Special Channels
Loundon Co. Cable 104 S Main St. Clinton	-	3,200	-	-	12	1 automated
Manchester TV Cable of Tn. 206 N. Erwin	12/67	2,100	1,117	35	12	1 automated
Martin Clear Vision 225 Lindell	11/69	2,437	2,058	32	12	1 automated
McKenzie Clear Vision	11/69	1,650	1,490	30	12	1 automated
McMinnville TV Box 311	7/68	4,650	2,704	75	12	1 access
Memphis CATV 2114 Union Ave.	-	300,000	-	-	-	-
Milan Clear Vision Box 348	/65	2,800	2,238	39	12	2 unused
Morristown Sammons Comm. 210 Hill St.	3/64	7,000	4,487	87	12	1 automated

Table XIX (Continued)

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Mountain City Mountain City Cable	7/63	800	546	30	12	1 origination
Newport Sammons Comm. 214 N. Mims St.	5/66	2,000	1,745	23	12	1 unused
Oak Ridge Tenn. Cablevision 120 Randolph	11/65	10,300	3,670	130	12	1 origination
Oneida Cable TV 437 P. O. Box	3/66	3,500	500	34	12	3 unused
Paris FNI Comm. Inc. 1001 Mineral Wells	/69	6,000	3,284	49.9	12	2 unused
Parsons Warner Cable	/67	2,500	846	18	12	5 unused
Pulaski Cable TV 130 N 2nd	2/62	8,539	8,191	130	12	1 automated
Rockwood Cable TV Box 634 Harriman	12/65	2,650	791	35	12	1 access

Table XIX (Continued)

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Rogersville CATV Box 528	11/63	4,700	1,155	37	12	4 unused
Savannah Clear Vision Watson Shopping Cen.	6/65	2,500	2,203	40	12	1 automated
Selmar Comm. Antenna 116 W. Court Ave.	/66	1,114	766	16	12	5 unused
Sharon Clear Vision	3/72	400	200	8	12	5 unused
Shelbyville TV Ant. 127 S. Side	/72	12,262	1,000	50	12	1 automated
Sneedville Cable Co. Box 528	12/65	400	282	9	12	4 unused
Sparta TV Cable Box 115	9/69	2,500	1,189	25	12	1 automated
Trenton TV Cable 103 E. 1st St.	5/68	2,000	1,360	26	12	3 unused
Trezevant Clear Vision	11/71	325	210	10	12	4 unused

Table XIX (Continued)

Cable Station	Date Started	Homes in Area	Sub-scribers	Miles of cable	Channels	Special Channels
Tullahoma FNI Comm. 217 Atlantic St.	/69	4,900	3,004	94	12	1 automated
Union City Clear Vision 311 S. 2nd St.	1/65	3,684	2,591	47	12	1 unused
Waynesboro Warner Cable	/65	850	706	23	12	5 unused
Winchester Franklin Co. CATV	7/67	3,000	1,200	32	12	1 unused

APPENDIX D

Table XX. County Electronic Media Availability In Tennessee as Listed by County and District

County	Media Market	Media Facility Radio	Media Facility Television	Cable System
District I				
Benton	Camden*	WFML-AM WRJB-FM**	-	Camden TV Cable Co.
Carroll	Huntingdon*	WJPJ-AM WPVG-FM**	-	Clear Vision Cable Co of Bruceton, Hollow Rock, Trezevant, McKenzie Atwood, Huntingdon
	McKenzie	WDHM-AM WKTA-FM**	- -	
Chester	Henderson*	WHHM-AM	-	Henderson Cable TV
Crockett	Alamo*	-	-	-
Decatur	Decaturville*	-	-	Warner Cable of Decaturville
	Parsons	WTBP-AM	-	Warner Cable of Decaturville
Dyer	Dyersburg*	WDSG-AM WASL-FM	- -	Dyer-North Gibson Co CATV
	Dyer	WTRO-AM	-	Cable Community of Dyersburg Inc.
Fayette	Somerville*	-	-	-
Gibson	Trenton*	WTNE-AM	-	Trenton TV Cable Co.

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
	Humboldt	WIRJ-AM WHMT-AM	-	Humboldt Cable Co.
	Milan	WKBJ-AM	-	Clear Vision TV
Hardeman	Bolivar*	WBOL-AM WUST-AM**	- -	Bolivar Cable Co.
Hardin	Savannah*	WORM-AM/FM**	-	Clear Vision TV Co.
Haywood	Brownsville*	WBHT-AM WTBG-FM	-	-
Henderson	Lexington*	WDXL-AM WDXL-FM**	WLJT-TV	Clear Vision TV Co.
Henry	Paris*	WTPR-AM WTPR-AM**	-	FNI Comm. Inc.
Lake	Tiptonville*	-	-	-
Lauderdale	Ripley*	WTRB-AM	-	-
Madison	Jackson*	WDXI-AM WTJS-AM WJAK-AM WKIR-FM**	WBBJ-TV	Jackson Community Antenna, Inc.

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
McNairy	Selmar*	WDTM-AM	-	Selmer Comm. Ant. Sys.
Obion	Union City*	WENK-AM WALR-FM**	-	Clear Vision
Shelby	Memphis*	WMC-AM/FM WREC-AM WHBQ-AM** KWAM-AM** WQUD-AM WDIA-AM** WTNN-AM** WMSO-AM** WSUD-AM** WZXR-FM WEEF-AM/FM WLOK-AM** WMQM-AM KSUD-AM** KWAM-FM** WEVL-FM WEZI-FM WHRK-FM WMQM-AM	WHBQ-ABC WMC-NBC WREG-CBS WKNO-TV WMTU-TV	Memphis CATV
Tipton	Covington*	WKBL-AM WKBL-FM	-	-

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
Weakley	Dresden*	-	-	
	Gleason	-	-	
	Martin	WCMT-AM	-	Clear Vision
		WCMT-FM**	-	Clear Vision
	Greenfield	-	-	Clear Vision
	Sharon	-	-	Clear Vision
District II				
Bedford	Shelbyville*	WTCV-FM WHAL-AM WLIJ-AM	-	Shelbyville TV Antenna Service, Inc.
Davidson	Nashville*	WSM-AM WLAC-AM WSIX-AM** WWGM-AM** WZEZ-FM** WKDA-FM/AM** WLAC-FM** WMAK-AM** WNAH-AM WAMB-AM** WVOL-AM WSIX-FM** WHHM-AM	WDCN-TV WTVF-CBS WNGE-ABC WSM-NBC WZTV-17	-

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
Dickson	Dickson*	WDKN-AM WTNQ-FM	-	-
Giles	Pulaski*	WKSR-AM WMGL-FM**	-	Pulaski Cable TV
	Ardmore	WSLV-AM	-	-
Hickman	Centerville*	WHIP-AM WIKA-FM**	- -	- -
Houston	Erin*	-	-	-
Humphreys	Waverly*	WPHC-AM WVRY-FM**	- -	- -
Lawrence	Lawrenceburg*	WDXE-AM WDXE-FM**	-	Loretto CATV, Inc.
Lewis	Hohenwald*	WMLR-AM	-	-
Lincoln	Fayetteville*	WEKR-AM WIXC-AM WYTM-FM**	-	-
Marshall	Lewisburg*	WJJM-AM/FM**	-	WSML Cable Radio and TV

Table XX (Continued)

County	Media Market	Media Facility Radio	Media Facility Television	Media Facility Cable System
Maury	Columbia*	WKRM-AM WMCP-AM WKOM-FM**	-	FNI Communications
Montgomery	Clarksville*	WDXN-AM WJZM-AM	-	-
Perry	Linden* Lobelville	- WTHJ-FM	-	TN Valley Video Inc.
Robertson	Springfield*	WDBL-AM/FM	-	-
Rutherford	Murfreesboro*	WGNS-AM WMTS-AM WMTS-FM**	-	-
Stewart	Dover*	-	-	-
Sumner	Gallatin*	WHIN-AM WAMG-AM WHIN-FM**	-	-
Wayne	Waynesboro*	WAAN-AM	-	Warner Cable
Williamson	Franklin*	WAGG-AM WIZO-AM WIZO-FM**	-	-
Wilson	Lebanon*	WCOR-AM WCOR-FM**	-	-

Table XX (Continued)

County	Media Market	Media Facility Radio	Media Facility Television	Cable System
District III				
Bledsoe	Pikeville*	WVAT-AM	-	-
Bradley	Cleveland*	WBAC-AM WCLE-AM WQLS-FM**	-	-
Coffee	Manchester*	WMSR-AM	-	TV Cable of Tn.
		WMSR-FM*	-	
	Tullahoma	WJIG-AM/FM**	-	FNI Comm. Inc.
Grundy	Tracy City*	-	-	-
Franklin	Winchester*	WCDT-AM*	-	Franklin Co. CATV, Inc.
	Cowan	WZYX-AM	-	
Hamilton	Chattanooga*	WSIM-FM**	WDEF - CBS	-
		WDEF-AM/FM	WRCB - NBC	
		WDYN-FM	WTVC - ABC	
		WEDG-AM**		
		WPJD-AM**	WRIP - 61	
		WRIP-AM**	WTCI - 45	
		WGOW-AM**		
		WFLI-AM**		
		WDOD-AM		
		WDXB-AM		
		WMOC-AM		
		WNOO-AM		

Table XX (Continued)

County	Media Market	Media Facility: Radio	Media Facility: Television	Media Facility: Cable System
		WDOD-FM** WYNQ-FM WOWE-FM WENR-AM		
Marion	Jasper*	-	-	-
	South Pittsburg	WEPG-AM	-	-
McMinn	Athens*	WLAR-AM WYXI-AM WENR-AM	-	Athens Cable TV
	Etowah	WCPH-AM WMCC-FM**	-	Etowah TV Cable
Meigs	Decatur*	WOWE-FM	-	-
Monroe	Madisonville*	WZZI-AM	-	-
	Sweetwater	WDEH-AM WDEH-FM**	-	-
Moore	Lynchburg*	-	-	-
Polk	Benton*	WBIN-AM	-	-

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
Rhea	Dayton*	WDNT-AM WNFM-FM**	-	-
Sequatchie	Dunlap*	-	-	-
Van Buren	Spencer*	-	-	-
Warren	McMinnville*	WAKI-AM WBMC-AM/FM**	-	McMinnville TV Cable
District IV				
Cannon	Woodbury*	WBRY-AM	-	-
Clay	Celina*	-	-	-
Cumberland	Crossville*	WAEW-AM/FM** WCSV-AM	WCPT - 55	Crossville Cable
DeKalb	Smithville*	WJLE-AM	-	-
Fentress	Jamestown*	WCLC-AM WDEB-AM/FM	-	-
Jackson	Gainesboro*	W -	-	-
Macon	Lafayette*	WEEN-AM	-	-

Table XX (Continued)

County	Media Market	Media Facility Radio	Television	Cable System
Morgan	Wartburg*	WEQO-AM** WECO-AM** WHBT-AM	-	-
Overton	Livingston*	WLIV-AM/FM	-	Tn. Cable TV Inc.
Pickett	Byrdstown*	-	-	-
Putman	Cookeville	WHUB-AM WPTN-AM/FM WHUB-FM**	WCTE - 22	FNI Communications
Scott	Huntsville*	-	-	-
	Oneida	WBNT-AM/FM	-	Oneida Cable
Smith	Carthage*	WRKM-AM/FM	-	-
Trousdale	Hartsville*	WJKM-AM	-	-
White	Sparta*	WUCR-AM WSMT-AM/FM**	-	Sparta TV Cable
District V				
Anderson	Clinton*	WYSH-AM/FM	-	Clinton TV Cable

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
	Oak Ridge	WATO-AM** WUUU-FM** WOKI-AM/FM	-	Oak Ridge TN Cable
Blount	Maryville*	WGAP-AM	-	-
	Alcoa	WEAG-AM	-	-
Campbell	Jacksboro*	-	-	-
	Jellico	WJJT-AM	-	Jellico Cablevision
	LaFollette	WLAF-AM**	-	E Tn. Cable
Carter	Elizabethon*	WBEJ-AM WIDD-AM/FM**	- -	Sammons Comm. Carter Co. Cable
Claiborne	Tazewell*	WNTT-AM	-	-
Cocke	Newport*	WLIK-AM	-	Sammons
Grainger	Rutledge*	-	-	-
Greene	Greeneville	WGRV-AM WSMG-AM WOFM-FM**	-	Warner Cable

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
Hamblen	Morristown*	WCRK-AM WMTN-AM WAZI-FM**	-	Sammons Communications
Hancock	Sneedville*	-	-	Sneedville Cable
Hawkins	Rogersville*	WRGS-AM	-	Rogersville TV Cable
	Church Hill	WMCH-AM	-	-
Jefferson	Dandridge*	-	-	Dandridge Univ.
	Jefferson City	WSMB-FM WJFC-AM	-	-
Johnson	Mountain City	WMCT-AM	-	Mtn. City Cable Co.
Knox	Knoxville*	WRJZ-AM WNOX-AM WBIR-AM/FM WJBE-AM WIVK-AM/FM WKGN-AM** WKXV-AM WEZK-FM** WSKT-AM** WKVQ-AM**	WATE - NBC WBIR - CBS WTVK - ABC WSJK - 2	Athena Cable

Table XX (Continued)

County	Media Market	Media Facility		
		Radio	Television	Cable System
Loudon	Loudon*	-	-	Loudon Co. Cable
	Lenior City	WBLC-AM WLIL-AM/FM	-	-
Roane	Kingston*	-	-	Harriman TV Cable
	Rockwood	WOFE-AM	-	Rockwood TV Cable
Sevier	Sevierville*	WSEV-AM WSEV-FM**	-	Ultra Comm of Gatlinburg
Sullivan	Blountville*	-	-	-
	Bristol	WZAP-AM** WCYB-AM* WKYE-AM WFHG-AM/FM** WOPI-AM	WCYB - NBC	Sammons Communications
	Kingsport	WGOG-AM WKIN-AM WKPT-FM/AM**	WKPT - 19	Warner Cable
Unicoi	Erwin*	WEMB-AM WXIS-AM**	-	Warner Cable
Union	Maynardville*	-	-	-

Table XX (Continued)

County	Media Market	Media Facility Radio	Media Facility Television	Media Facility Cable System
Washington	Jonesboro*	WJSO-AM WJCW-AM	-	-
	Johnson City	WETB-AM WQUT-FM**	WJHL - 11	Sammons Communications

*County seat.

**Carry University of Tennessee Agriculture programs.

APPENDIX E

The University of Tennessee
INSTITUTE OF AGRICULTURE

Agricultural Extension Service
P.O. Box 1071
Knoxville, Tennessee 37901

January 7, 1977

Dear County Extension Leaders:

We are making our annual revision of SP 178, "Tennessee Extension On The Air," which lists the weekly radio schedule for all county Extension radio programs.

The broadcast schedule for your county, as contained in the 1976 publication, is listed on the enclosed white sheet. Please make necessary corrections to adjust this to your current radio broadcast schedule and return to me by January 20, 1977. Be sure to include all radio programs produced on a regular basis by all members of your county staff. Please include food marketing and resource management agents.

We are also evaluating the radio and television programs produced here at the Institute of Agriculture in Knoxville. Your suggestions for program ideas to include in future broadcasts would be appreciated. We would also welcome comments from you and your clientele concerning programs that have been helpful and/or programs that have not appealed to your clientele.

Thanks for your cooperation.

Sincerely,

Elaine K. Wiedemann
Assistant Communications Specialist

George C. Mays
Communications Specialist

pkg

Enclosures

cc: G.W.F. Cavender
District Supervisors
Associate Supervisors

The Agricultural Extension Service offers its programs to all eligible persons regardless of race, color, or national origin and is an Equal Opportunity Employer.
THE UNIVERSITY OF TENNESSEE AND THE U.S. DEPARTMENT OF AGRICULTURE COOPERATING

COUNTY RADIO SURVEY

County _____

District _____

Radio stations that currently use program material provided by your office

AM stations _____ _____

and Location _____ _____

FM stations _____ _____

and Location _____ _____

Day of Week	Time	Program Length	Call letters of Station	City	Frequency of Station
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					

My programs were heard at no regular time (check if applicable) _____.

VITA

Elaine Kelsey Wiedemann, the daughter of Mr. and Mrs. Paul C. Kelsey, was born in Wayne County, West Virginia. She attended and graduated from elementary and secondary schools in Huntington, West Virginia. She is a graduate of the University of Dayton, Dayton, Ohio, College of Home Economics and the College of Communications.

The writer has been employed by utility companies as a Home Service Representative in West Virginia, Washington, D. C. and Florida. She has worked as talent for both radio and television stations in Ohio, South Carolina and Florida. The writer accepted a position with the Agriculture Extension Service, University of Tennessee in 1970 to work with adults and youth in the home economics program, Johnson County, Tennessee. In August of 1975, she was promoted to the state specialist staff, Communications Office, Institute of Agriculture, as a radio/television specialist.

The writer is a member of The American Home Economics Association; Tennessee Home Economics Association; Knox Area Home Economics Association; Tennessee Broadcasters Association; American Association of University Women; Business and Professional Women's Organization; Epsilon Sigma Phi and the State Food Marketing Advisory Committee.