Development of television in Montana

Raymond George Dilley

The University of Montana

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THE DEVELOPMENT OF TELEVISION IN MONTANA

By

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INTRODUCTION

Television is older than the automobile, the airplane, motion pictures, photographic paper, radio and the X ray.¹

Before all of these important inventions, Paul Nipkow, a German scientist, had successfully transmitted a picture using a whirling disk punched with holes. As light coming through the holes struck a selenium cell, it produced an electrical signal which was carried through wires to a receiving set with a whirling disk and a light source to project the image. This machine, demonstrated in 1884, paved the way for experimentation in what was to be called television.²

Little was done with the invention until the 1920s. With the success of radio, the possibility of transmitting a picture as well as sound was suggested. Following further experimentation with the whirling disk, a still picture of President Harding was transmitted through the air in 1923. In 1926, an English experimenter transmitted a moving television image.

By 1931, five television stations were operating experimentally. But viewers soon lost interest in this novelty because the quality of the whirling disk method was quite poor. A flickering and lack of definition in the picture were inherent in the machinery and could not be eliminated. The only solution was to begin again.³

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³Ibid., pp. 13-14.

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During experimentation with the disk method, a Westinghouse Electric employee, Vladimir Zworykin, had been working on an all-electronic television tube, called the iconoscope. He patented his device in 1923, beginning the television system known today. It was 16 years, however, before the iconoscope came out of the laboratory and was demonstrated to the public.

The new, electronic form of television was first shown to the American public at the World's Fair in New York and San Francisco in 1939 and started a renewed interest in the video age.

That same year experimental television stations broadcast a number of programs from the new NBC television network. The network offered a baseball game, a football game, a number of dramas and a few special programs including the New York film premiere of "Gone With the Wind."

Two years later, experimental television stations became a matter of history. On July 1, 1941, WCBW, a CBS affiliate, and WNBT, affiliated with NBC, became the first commercial television stations.

But the expansion of television was delayed by World War II. New receivers could not be built, and further technical improvements had to wait. All production was channeled toward the war effort.

At the end of the war, however, television experienced a growth far surpassing that of radio in the 1920's.

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The public was ready and eager for television. Additionally, electronic developments during the war, especially in radar, were applied to the development of television.\(^7\)

The year of the great television boom is generally marked as 1948. The number of stations on the air increased from 17 to 41 and television receiver production increased more than 500 per cent over 1947.\(^8\)

In the fall of 1948 the Federal Communications Commission became wary of the uncontrolled growth of television because its station allocation plan was causing interference among stations and because the 12 channels allocated for television were soon going to be inadequate to supply the demand for stations. As a result, the FCC suspended all pending applications for stations. That was the start of the television "freeze."

For four years the construction of new television stations was stopped. On April 14, 1952, the FCC published new rules which provided for 82 channels and 2,053 station assignments to 1,291 communities. The boom was renewed.\(^9\)

Montana's first television station went on the air in 1953 in Butte. Until then television had not been seen by Montanans except for the few who had been exposed to it in other areas. There were a few receivers, but they were owned by the experimenters who searched for

\(^7\)Willis, op. cit., p. 15.
\(^8\)Head, op. cit., p. 158.
\(^9\)Ibid., pp. 158-161.
When television finally came, dealers were hard-pressed to keep up with the demand for receivers. Many persons were so eager to enjoy the new medium they would often hang bed springs and coathangers out of windows rather than take time to install antennas.

Television had a great impact in Montana. Radio found a competitor for its advertisers and audience. Newspapers also found an active competitor for the advertising dollar and an aggressive force which could transmit not only the words but the pictures of a news event faster than they.

Television broadcasters in Montana faced the same cold reception from competition as in other areas of the United States. They also found problems unique to the state and unlike those anywhere else.

Montana television broadcasters have struggled with rough terrain in an attempt to locate sites for transmitting towers and microwave relays to bring in network programming. In some instances mountain-top equipment is accessible only by helicopter several months of the year. Montana broadcasters have also faced the problem of relatively small audiences and a lack of live network programming.

It is evident that the early years of television in Montana were difficult for most broadcasters. The success of many stations was a questionable matter at best and two ceased operations because of

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10 Signals from distant stations which are bounced off the ionosphere and back to earth. The phenomenon is more familiar in lower frequency radio and is the reason why radio stations from great distances can be heard at night.

11 Conversation with Jim Manning, salesman, KXLF-TV, Butte, Montana, April 6, 1965.
Television broadcasters are viewing the rapid growth of community antenna television systems (CATV) with increasing alarm.\(^{12}\)

It is the broadcasters' contention that cable systems are bringing outside television stations into their viewing and selling areas, thereby competing with their audience and, in turn, their advertising sales potential. They also believe CATV presents an unfair competitive climate because it pays nothing for the programming it uses while the broadcaster must pay for many of his programs.

That these claims have some substance is reflected in a recent Federal Communications Commission decision which concludes action is necessary to "ameliorate the adverse effects of CATV competition upon the maintenance and healthy growth of television broadcast service."\(^{13}\)

Because of these problems this thesis will discuss the past and present of television in Montana with the hope that through a solid historical framework some of the present difficulties facing broadcasters and cable operators will have more meaning.

The author has relied mainly on interviews with persons directly involved with the past and present of television. Their information has

\(^{12}\)A CATV system consists of a master antenna complex which receives signals from nearby television stations. The signal is then amplified and fed into a community by cable or wire. Each home subscribing to cable services is given the signals taken from the master or trunk cable line coming from the antenna. Some cable systems have replaced their antennas with microwave signals relayed from distant television stations.

been supplemented with newspaper, magazine, government and other research materials for clarity and perspective.

It should be noted the thesis does not treat the television stations chronologically or individually in all cases. The stations in Great Falls and Billings have been discussed in chapters dealing with each area because it is important to view the interplay between the two stations in each city. Had these stations been treated chronologically, as all others have been, discussions of relationships would have been clouded with confusing and unnecessary cross references. A chronological listing of Montana television stations may be found in Appendix I.
TELEVISION COMES TO MONTANA

Ed Craney is a small, energetic man who became one of the most successful and respected broadcasters in Montana. Retired now, he pioneered both radio and television in the state and built a chain of radio stations that has come to be known as the "old XL network."

When Craney decided to try his hand at television in Montana, he already was operating five radio stations in the state and television station KXLY-TV in Spokane. Craney built Montana's first television station, KXLF-TV, in Butte, the location of his first radio station. It went on the air August 14, 1953.1

The original studios and transmitter were located on the south side of Butte in the second story of a building that housed a grocery store. Jim Manning, who still works for KXLF-TV as a salesman, recalls three months after the station went on the air, a burglar cracked the safe in the grocery store below. He gained entry by climbing the transmitting tower beside the building and broke into the station's studios. He then cut a hole in the studio floor and lowered himself into the grocery by scaling down a camera cable. The strain broke many of the small wires in the delicate cable, and rendered the only camera the station had useless until the cable could be replaced.2

KXLF-TV originally had been scheduled to begin service August 15,

2Conversation with Jim Manning, salesman, KXLF-TV, Butte, Montana, April 6, 1965.
but the employees were so eager to begin operation they temporarily installed some of the equipment, dangled a wire from the transmitter to the tower and broadcast a test pattern at 20 minutes to midnight on August 14.  

One reason for the rush was that a second station was being built in Butte at the same time and went on the air only 12 days after KXLF-TV. Frank Carmen, who owned KOPR radio in Butte, was building the second station (KOPR-TV) apparently with the hope that Craney would pull out under the threat of competition. But Craney went ahead with his plans and began to search for program material.  

The NBC television network charged national advertisers $100 per hour for the Butte market. As there were no receivers at the time, no advertisers were willing to pay the rate.  

As a result, Craney decided to buy some film programs, at his expense, and produce a number of local programs.  

I figured that TV had to be subsidized for some time by radio so I told my radio sponsors that if they bought $100 a month in advertising on radio, I would give them $100 a month free advertising on TV. We ran for a year that way.  

Although our competition had a radio station and could have done the same thing, they didn't have brains enough and went out of business within three months after they began telecasting.  

Actually KOPR-TV went on the air August 26, 1953, and survived until September 20, 1954.  

When KXLF-TV went on the air, Craney wasted no time in beginning

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3Ibid.  
5Montana Standard, Butte, Montana, August 26, 1953.
a number of locally produced and sponsored programs. There were children's programs which caused so much interest it was impossible for station personnel to handle the youngsters who came to participate on the air; a hobby show; a weekly spelling bee pitting talent from schools in the area; a two-hour amateur hour called "Friday Night Party"; a program called "Know the Law," on which local attorneys would discuss points of law; and a number of panel shows involving local people. 6

Although KXLF-TV began operations on August 11, it was not until August 31 that testing ceased and the station began official commercial activity. That night Montana's first television commercial was produced. The Wilson Motor Company, taking advantage of Craney's commercial offer, bought some advertising. The product to be advertised was new automobiles and the sponsor wanted live television shots rather than still pictures or film. Because KXLF-TV was located on the second floor, the station's only camera had to be moved onto the street. After considerable preparation, the new cars were paraded by the camera as an announcer described them. Jim Manning, who sold the commercials to the sponsor, reported they were quite successful. 7

As more television receivers were purchased in the Butte area and KXLF-TV began to stand on its own, Craney expanded his operation. He decided his low power transmitter and poor antenna location were not giving the station the coverage it needed.

After some searching, he found a suitable site on a mountain now called XL Heights located a few miles east of Butte. Although the new

6Manning, op. cit.  7Ibid.
site, on the Continental Divide, was ideal for signal coverage purposes, an access road had to be constructed and a generator installed to provide continuous power for the transmitter. In the fall of 1956 the site was completed and a new 10-kilowatt transmitter began sending television signals to a greatly increased audience.

On November 10, 1959, a fire, caused by faulty wiring, destroyed the new transmitter. Craney announced KXLF-TV would be off the air for an indefinite period. 8

Jim Manning recalls that during the 30 days the station was off the air many viewers expressed their regret. Others had a different reaction.

We got a number of calls from people who said they enjoyed having some nights with their families. Others predicted a population explosion because they had nothing to do. They said they were getting acquainted again instead of watching television.

In 1956, when a new transmitter and tower were being installed on XL Heights, Craney decided the studios were too small for an expanding operation and the old Milwaukee Railroad Depot in Butte was selected as the new location. December 21 was chosen as the moving date. The television station was closed at 11 P.M. that day and equipment was quickly transferred into waiting moving vans. By 4 P.M. the next day KXLF-TV was back on the air and operating normally with the exception of the live camera, which was installed a few days later.

The only great problem was that the Milwaukee Railroad had misjudged the completion date for its new depot and both parties had to use

9 Manning, op. cit.
the facility for six months. 10

Craney's next significant problem was to locate a method of obtaining profitable network programs. He found that the rugged terrain of Montana would not allow long microwave "hops" from areas where network signals could be received. 11 Instead, the mountains stopped the microwave signals before they could travel far causing the need for a greater number of expensive relay stations. In addition, he found the great distance from his station to a receiving area created a need for extra relay stations.

Noting other television broadcasters getting their start in Montana at this same time were having similar difficulties, Craney decided they should all join forces. He recalls presenting his idea to other broadcasters in 1957.

It occurred to me that with such small populations as we had in Montana, that if we could get all the television applicants in the state together, we could bring in complete network coverage to the whole state with a group of four mountain microwave stations.

I wrote a letter to Montana television broadcasters] and got them together in Helena. I suggested we form one big company, put it together and stick in the mountain-top stations so they could all have network quick. Well, they just wouldn't go for it. 12

Until stations could get network programming they had to rely on

10Ibid.

11Microwave is a series of receivers and transmitters relaying signals from one point to another. Each microwave station receives signals from another, amplifies the signal and transmits it in a straight line to another receiver. This permits signals to be relayed over an indefinite distance without loss of strength or quality.

12Craney, op. cit.
old movies and local and live programming. Craney needed network programming. He described the situation:

Unless you can get major programming, you can't get people interested in buying sets. Unless you get people interested in buying sets you can't hold a market, and without a market, you can't sell time. Here in Montana, all of the stations' problem was getting programming in.\(^{13}\)

Without the proposed microwave company, KXLF-TV and other stations first had to rely on network film which was unreliable, dated, and expensive, according to Craney.

Later on we tried to find high places where we could pick up KID-TV, Idaho Falls, or KMSO-TV, Missoula.\(^{14}\) It was a terrific job to get men and equipment on the mountains to test. But, we finally located a spot on the Highlands south of Butte where we could pick up and rebroadcast both stations. It wasn't a very good spot. The signals were too weak. So we eventually went down south to Armstead and then microwaved from there to the Highlands, to the studio and then back to the Continental Divide where our transmitter had been relocated.\(^{15}\)

Jim Manning, who helped survey the new microwave sites, recalls some of the problems involved.

Four of us went in groups of two. We covered a lot of mountains and mountain tops. Of course we had to walk most of the time. It sometimes took days to get to the places we were looking for. To survey our headings from peak to peak we would flash mirrors during the day, and use flashlights or our truck lights at night.\(^{16}\)

Although each station had decided to build its own microwave system, there still remained the problem of sparse population. National advertisers, who prefer to spend their money in metropolitan areas, were

\(^{13}\)Ibid.

\(^{14}\)KMSO-TV, Missoula, was on the air in July, 1954.

\(^{15}\)Craney, op. cit.

\(^{16}\)Manning, op. cit.
not very interested in Montana. On a national scale, a commercial in
Butte, or Missoula, or any city in Montana, counted very little. Craney's
answer to this problem was the Skyline Television Network.

It's easier to go into an advertising agency if you're talking
about 100,000 sets than if you're talking about representing
30,000. We didn't have anything like that in the Intermountain
West. So Skyline was formed as a matter of sales and programming.17

After maneuvering with friends in Washington and Idaho, Craney
formed the common-carrier microwave company which would feed programs
from key locations to stations in Twin Falls and Idaho Falls, Idaho, and
Butte and Helena, by connecting with their independent microwaves. The
new network was a non-profit organization owned by the stations involved.
It was then able to go to advertising agencies and ask for national
advertising by offering package deals representing all the stations on
the network. This eliminated the problem of each station trying to find
national advertising for its own small coverage area.18

By this time Craney was operating another television station in
Helena. He originally planned to use Helena as an unattended translator
which would simply rebroadcast the programming from Butte. This would
give the Butte station extended coverage in Helena and ease the problem
of finding national advertising for the small Butte market.

Craney applied for a license to operate KXLJ-TV, an unattended
satellite station in Helena early in 1955. The FCC denied the request
because it "did not believe in operations which were unattended."19

17 Craney, op. cit.
18 Ibid.
19 Conversation with Barclay Craighead, manager of KXLJ-TV 1958-
Instead, three years later Craney built a complete station using the same call letters. KXLJ-TV went on the air January 1, 1958. Although the station was manned, Cranney used a minimum sized staff and amount of studio equipment, relying on KXLF-TV for most programming. Craney tried to sell local advertising to supplement his national income, but without much success.  

The Helena cable company, Helena TV, Inc., had covered most of the town by that time. Most businessmen believed viewers were watching the cable rather than the local station and refused to buy local advertising. This economic squeeze was the crux of a conflict between Craney and the Helena cable interests that lasted for years and is still a classic study of animosity between the two media.

The cable company was formed in 1954 by a group of businessmen headed by William Piehl for the main purpose of selling television receivers. Piehl reports the business was under-financed and greatly taxed the resources of stockholders, but construction began on January 8, 1955. The company was able to provide subscribers with signals from Butte, Great Falls and Missoula.

In 1958 Craney applied for a microwave link which would bring in the signal he wanted from Butte. The cable company also made application for a microwave into Helena to bring in more stations. The FCC informed Craney he would have to buy his Butte signal from the cable company.

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20 Ibid.
22 Ibid.
Craney's reply to the FCC was quite pointed.

Well, we said, if we have to do that we are going to close up the station, and you make up your mind to it. You either find a way to grant us a microwave to pick up our own signal, and transmit it from the Continental Divide down into Helena or else there won't be a station there.23

The microwave was granted in 1958 and Craney found he was able to relay a strong signal from Butte to Helena. The real problem began, however, when the cable company brought in a Spokane television station which carried the same programs as Butte and Helena causing the Helena audience to be split between the two media. As the KXLJ-TV audience was reduced it became increasingly difficult for its salesmen to sell commercial time.

KXLJ-TV was losing money. Its sister radio station was quite profitable, however, and supported the television operation for four years.24

To combat the situation, Craney hired former Washington Senator Clarence Dill, co-author of the Radio Act of 1927, as his attorney and prepared to take the cable company to court protesting the use of the Butte signal without the station's permission. The morning of the trial, a cable company representative handed Craney a letter which stated the company was willing to take Butte off the system, but refused to carry KXLJ-TV.

But the programs from Craney's station were still being duplicated on the cable by the Spokane and Great Falls stations.

\[23\]Craney, op. cit.

\[24\]Craighead, op. cit.
Several months later Craney protested to the FCC the cable's use of Spokane to the exclusion of Helena. According to Craney, the commission told him his complaint was without legal foundation.

Not without recourse, Craney then applied to the U. S. Court of Appeals in Washington, D. C., and obtained a court-ordered FCC hearing on the matter. Craney also asked for an injunction to have the Spokane signal eliminated in the interim. It was refused.

At this time KXLJ-TV had been in operation a year and had very few advertisers. Craney recalled the difficulty of renewing the few advertising contracts that existed.

Most of our contracts were coming up for renewal at this time. We sent salesmen out to the advertisers. They came back with nothing. The Helena businessmen had decided everybody was watching the cable, not us, and didn't renew.25

Craney found he was unable to compete with cable and decided to close the station. The 1959 Montana Legislature was in session at the time and KXLJ-TV had been filming portions of the legislative proceedings, rushing the films to Butte and broadcasting the films over Butte, Helena and Great Falls. A small booklet printed and distributed by KXLJ-TV began with the following statement:

For the first time in the history of Montana, legislators and Montana citizens were brought closer together by the television facilities of KXLJ-TV in Helena. The availability of this local informational feature gave Montanans a chance to see and hear their lawmakers. Legislators could quickly present their activities to people over nearly the entire state.26

From January 5 through January 31, members of the Legislature came

25 Craney, op. cit.
26 KXLJ-TV, Legislative Highlight Telecasts (n.d.).
to the KXLJ-TV studios and presented their bills and political thoughts
to a great portion of the Montana population. The booklet gave a daily
account of the legislators who had participated in the broadcasts.
Craney's small publication ended with this short statement: "Unfortunately
for the public, as well as the staff of KXLJ-TV 12, KXLJ-TV 12 was
driven from the air." 27

Through his telecasts, Craney had gained the favor of many state
legislators. Most had enjoyed the benefits of television and wanted the
service to continue. But, at a politically opportune time, KXLJ-TV
ceased operations. At midnight, January 31, 1959, Barclay Craighead,
manager of the station, announced to the public that the station was not
able to continue and would be off the air for an indefinite period.

Craney then promised his half-dozen employees he would find work
for them, or simply support them himself. Some went to Kalispell where
a new station was opening. Others went to Butte. A few found employment
by themselves. 28

A month later the Court of Appeals hearing was enacted and Craney's
demand to have the Spokane station eliminated from the cable system was
upheld. KXLJ-TV then went back on the air.

Shortly thereafter the Helena cable company filed a trust suit
against KXLJ-TV for $1,300,000, claiming Craney was trying to hamper its
operations. At the same time Craney filed a plea in a Helena court
against Helena TV, Inc., to have the Great Falls signal taken off the

27Craighead, op. cit.
28Ibid.
cable because it was duplicating the Helena offering. The court ruled against Craney's plea.

At this point Craney decided to give us his television interests in Montana.

We finally got to the point where we were so harassed that a broadcaster friend of mine in Billings, Joe Sample, said he thought he could get the anti-trust suit withdrawn if I'd sell the Helena station to the cable company. I said I'm not going to sell the station . . . to the cable people. I don't believe that the cable people should own the station, and I'm not going to sell it to them.29

Sample then asked if he could buy the station. Craney told him he would have to buy both Helena and Butte because he would not "sit here with one part and not the other."30

In March, 1961, Sample bought both stations, then sold the Helena station to the cable company and kept Butte. The cable company dropped the anti-trust suit and put KXLJ-TV on its system.

Not long afterward Craney recalls meeting an official of the recently sold station.

I said, "You've done everything that we asked you to. You've taken Great Falls and Spokane off the cable system, you've put the Helena station on. Why the devil didn't you do it before?" He said, "Think of all the thousands of dollars we made doing it this way." I said, "Well, OK, you're ahead. You've won."31

Immediately after purchase, the Helena cable company began an overhaul of KXLJ-TV. The first act was to change the call letters to KBLL, symbolic of the word "cable." The manager of the cable company

29 Craney, op. cit.
30 Ibid.
31 Ibid.

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was also given the position of station co-manager with Ernest Neath, who had worked for Craney from the time the station had begun broadcasting for the second time in 1960.

The station was expanded and strengthened technically. But the income did not increase. Two months later, on May 17, 1961, the management of KBLL-TV decided it was overstaffed and the former Craney manager was dropped from the staff. At that point, the station was completely a cable company operation.32

The cable company operated KBLL-TV for two years without success. It was reported that several thousand dollars were lost each month, and on June 10, 1963, the station was again sold. Paul McAdam, Bob Magness and William Scrivner became the major stockholders.

McAdam and Magness are partners in the Western Microwave company which brings television signals into Montana from Idaho for broadcaster and cable consumption. Additionally, Magness owned the Bozeman cable company and McAdam owned the Livingston CATV system. Scrivner was a Helena attorney.

Under the new corporation, Capital City TV, Inc., KBLL-TV again completely changed its operating procedure.

A new manager was hired to replace the former cable company employee. The station was in a serious state of disorganization. The cable company, in a vain attempt to nullify the station's growing losses had cut expenses to the bone. The program director of radio, who became radio and television manager with the new owners, recalls some of the

problems under the cable company.

There was a rapid exodus of staff. Everybody became panic stricken and ran like rats from a burning barn. Among the exodus was myself and practically everybody else. The last two or three months the manager didn't come to work so the employees ran the station as best they could.\textsuperscript{33}

The new management has changed the situation considerably. The station now operates in the black consistently; has expanded its local programming; has added new equipment including video tape facilities, and has strengthened its staff.

The position of KBLL-TV now is to expand slowly, carefully and consistently, according to the new manager.\textsuperscript{34}

Because Helena is a small market it is extremely difficult to sell national advertising. The cable covers the city with programming from larger stations which carry the same network programs as KBLL-TV. There is no reason for national advertisers to pay twice. For this reason, KBLL-TV has instituted a strong local programming and selling policy. The station reports a monthly national advertising revenue of $\$ 1,500 \text{ to } \$ 2,000$. As this is just enough to pay operating costs, all profit must come from local advertising.

Even with these problems, the station has a liberal attitude toward cable. Although the cable offerings cut deeply into the station's national income through decreased audience, the KBLL-TV management has found it a stimulating experience to be forced into competition with stations in a larger city and with a greater operating budget. The

\textsuperscript{33}Conversation with D. C. Sutherland, manager KBLL-TV, Helena, Montana, June 1, 1965.

\textsuperscript{34}Ibid.
station manager thinks he is giving the Helena viewers a better product because of the competition.

We have come a long way and we are doing very well now. Possibly this is because of the competition they are providing. It may hurt us a time or two, but it has improved our news and local offerings. It certainly is not going to put us out of business.35

In Butte, the transition of ownership from Ed Craney to Joe Sample of Billings was much smoother than in Helena. Under Ed Peiss, the new manager, a production department was added immediately. Later, another camera chain was installed. Video tape was also instituted in conjunction with the new production personnel. According to Peiss, however, there were no major changes.

The day to day operation has remained constant. It's still a sales business. We are a commercial station and depend on sales for our livelihood. We changed our philosophy some. But ownership was the big change.36

Part of the philosophy change was an increased emphasis on public service programming involving as much of the community as possible. KXLF-TV is actively reporting community affairs in an effort to "enhance the general economic picture, the social picture and the basic overall philosophy in the community."37

In line with the new philosophy, KXLF-TV instituted a series of filmed French lessons for the fifth and sixth grades in Butte and some outlying districts in 1963. Public service programs each week feature the Butte Ministerial Association, county agents, soil conservation

35Ibid.
36Conversation with Ed Peiss, manager KXLF-TV, Butte, Montana, April 6, 1965.
37Ibid.
service and a number of charitable organizations.

In October, 1963, the station began a series of semi-annual meetings with a television advisory board formed for the sole purpose of examining KXLF-TV programming. The board consists of representatives from all segments of the community including business, labor, education and the professions. The purpose of the group is to gauge community reactions to KXLF-TV program material.

Another great difference between Helena and Butte is the matter of cable television. Sample's company, Garryowen, Inc., owned 29 percent of the cable company when it started in Butte in the fall of 1961. At the inception of the cable company, it was agreed the local station would be carried and the cable company would not duplicate any KXLF-TV programs through other stations on the system either before or at the same time KXLF-TV had them scheduled.

According to Peiss, the only point of contention or disagreement between the two was the unnecessary length of time before the cable company installed automatic switching equipment designed to cut out other stations on the cable at the hours they were carrying the same programs as KXLF-TV.

In the matter of newspaper competition, Peiss relates a situation similar to that of other areas.

The newspaper has not been 'friendly' to us. They will not carry our program schedule unless they are allowed to edit it. They want to eliminate our listings of news programs. They say they will not advertise their competition. We think it's a rather small attitude and cannot agree. Therefore we have refused them permission to print our schedule unless it is in its entirety, and without censoring it. They have not elected to do so, and that's all right with us.38

38 Ibid.
In order that the Butte television viewers might have complete program listings, the station publishes a complete schedule quarterly. Between 25,000 and 30,000 copies are given to the station's advertisers. The idea is to create more traffic in the advertisers place of business thereby increasing his sales and at the same time keeping the viewers happy with a schedule.

For the future, KXLF-TV is planning a second microwave system that will act as a back-up in case of trouble on the other, the transmission of network color, and remote control of the transmitter on XL Heights.39

39Ibid.
BILLINGS

KOOK-TV in Billings, one of Montana's pioneer television stations, went on the air November 9, 1953, only three months after KXLF-TV in Butte.

The original company was controlled by Charles L. Crist and Jay Carter Johnson, both Billings businessmen. Their original equipment included a 5-kilowatt Dumont transmitter, a single Dumont studio camera and a flying spot scanner film chain. All facilities were housed in a small cinder block building on the Billings Rimrocks. At that time the television station used much of KOOK radio's personnel. Combined personnel for the two operations totaled about 15. It is reported the station became profitable after four months of operation.¹

In 1953, a young advertising executive from Chicago moved his family to Billings. He had no job, but he liked the area.

Joe Sample found work as a freelance market research consultant working periodically for the Yellowstone Park Company and for Ed Craney's Z Bar Network.

In December, 1955, Sample bought a third of Crist's stock for $60,000. The purchase amounted to 10 per cent of the company's total stock holdings. At that time Sample also stepped in as president of the company.

A year later he purchased the rest of Crist's stock for $90,000.

¹Conversation with Joseph S. Sample, owner KOOK-TV, Billings, Montana, June 10, 1965.
The company itself then bought out the rest of the stockholders.

When Sample had full control of the station he decided to increase his power from 13.8 kilowatts to 100 kilowatts. The power change took place in March, 1958.

While Sample was beginning to expand KOOK-TV a second station for Billings was being planned.\(^2\)

KGHL is an old and profitable radio station in Billings. With the apparent success of KOOK-TV, the owners of KGHL decided to expand into television in 1955.\(^3\) However, KOOK-TV filed an economic protest with the FCC.

It was the station's contention that the Billings market would not support two television stations at that time. A series of FCC hearings was scheduled. The construction of KGHL-TV was blocked for two years.

In July, 1957, a construction permit was granted and KGHL-TV went on the air on March 15, 1958. The station began operations with 16 kilowatts of power transmitting from a new RCA travelling wave antenna, the first in Montana. The station also had two studio cameras and two film projectors.\(^4\)

But KGHL-TV had serious internal problems. The owners were not experienced in television and depended entirely on their staff for most decisions. Unfortunately, the staff was not experienced either.

\(^2\)Ibid.

\(^3\)Conversation with Thor Myhre, manager KULR-TV, Billings, Montana, June 11, 1965.

\(^4\)Conversation with Dean Janama, chief engineer KULR-TV, Billings, Montana, June 11, 1965.
The station lost money and depended on KGHJ radio for economic support. Advertising rates were drastically lowered in an attempt to entice business.

Rate cutting became so serious it forced KOOK-TV to retaliate with lower rates and a number of package programs which Sample reports were not profitable. Sample decided he had to maintain his rates in spite of competition.

We had to stay at certain rates without cheapening the medium, because that's what it did. It cheapened the other station badly and it hurt us very badly because we decided to stay at our rates. We simply said that's what we're going to sell for—we're not going to give our advertising away.5

The result of rate cutting was businessmen began to think television had lost its advertising value and were hesitant to buy commercial time. But Sample did not stop his program of expansion. In October, 1959, KOOK radio and television moved into a new building. The transmitter remained on the Rimrocks at Sacrifice Cliff. The station was equipped with the latest television gear.

In 1957 Sample had a microwave link installed from the top of Big Horn Mountain beside a prehistoric medicine wheel. The microwave, located 10,000 feet above sea level, is the highest such station in the world. It is inaccessible nine months of the year except by helicopter.6

The system is powered by a diesel generator which has operated without failure since the station was constructed. The microwave picks up signals from KID-TV in Idaho Falls, Idaho, and relays them 69 miles to Billings.

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5Sample, op. cit.
6Ibid.
While KOOK-TV was becoming established and profitable, KGHL-TV was consistently losing money. Rate cutting had not worked. It is reported losses amounted to $250,000 per year in the late 1950's.7

On December 31, 1961, KGHL-TV was sold to Paul Crane, a prominent Montana radio broadcaster, and Dan Snyder, owner of KRTV in Great Falls.8

Snyder and Crane immediately ordered microwave network service from Western Microwave. At the same time, they moved the television studios to the transmitter location on the Rimrocks near the KOOK-TV transmitter. The new $60,000 building housed studios measuring 50' x 50', a spacious and well equipped control room and an expanded staff. But the station continued to operate at a loss. In an effort to increase the viewing audience, KGHL-TV placed a great emphasis on network color programming, so much so that the call letters were changed to KULR-TV in 1961.

In April, 1964, Paul Crane died. With Crane's death, Snyder decided to sell his interest in the station, leaving control to three major stockholders: Art Miller, Rex Baker and Thor Myhre. The latter had been in advertising in Billings and assumed the managership of the station.

The primary goal of the new KULR-TV owners is to make the station profitable through promotion, programming and audience polls, based on a great emphasis on color television.

Myhre reports the station has ordered a color film chain and two

7Myhre, op. cit.
8Ibid.
video tape machines, both capable of reproducing color.

The owners of KULR-TV hope an increased emphasis on color television will take some badly needed viewers away from KOOK-TV when audience surveys are taken.

KULR-TV also hopes to broaden the audience appeal to rural areas through a full time farm director coming to Billings from Kansas City where she produces television programs for the National Association of Farm Directors.

The station will also hire a full time news director. But the major promotion item will be color.⁹

Although Sample has not had the availability of network color programming because CBS and ABC, his prime affiliates, have not advanced in that area until recently, he apparently is beginning to feel competitive pressure from KULR-TV.

We think we have around $300,000 to spend on equipment in the next three years, primarily to bring ourselves up to complete color transmission of all sorts.¹⁰

KOOK-TV has a number of network offerings in color for the first time this fall as ABC and CBS have also felt color competition from NBC. In addition, the station will install a color film chain by March, 1966, a color video tape machine in 1967, and color studio cameras in 1968.

Sample stated his opinion of Myhre's push to color:

The other station might go to color film earlier. I've heard rumors that they bought a piece of used gear, but they aren't anxious to do that because, like anything else, the

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⁹Ibid.

¹⁰Sample, op. cit.
equipment becomes obsolete and used gear is already obsolete. But they need delivery fast. You can't get fast delivery on new equipment. In the final analysis, they are just going to have outmoded equipment. Hopefully, ours won't be that way.\textsuperscript{11}

Sample and Myhre believe Billings can become a market which will support two television stations with ease. But so far only KOOK-TV has been able to show a profit.

Neither television operator has been faced with the competition of cable. Both are somewhat concerned with CATV, however, because of recent rumors indicating a system is planned for the Billings market. Sample's concern is directed toward uncontrolled CATV systems.

I don't think they should be let go completely uncontrolled where they can eliminate small stations. This is not just self interest. I'm not that worried about it. But you have to control in fairness to the people who are trying to do a decent job.\textsuperscript{12}

\textsuperscript{11}Ibid.
\textsuperscript{12}Ibid.
The first of the two television stations in Great Falls was KFBB-TV. Joseph P. Wilkins, who had managed KFBB radio since 1940 and became president of KFBB Broadcasting Corporation in 1952, was responsible for the addition of television.

The station officially went on the air March 21, 1954, in a modern broadcasting facility combining radio and television under one roof. The combined facility established an economical operation where personnel could be used in both radio and television. KFBB-TV became affiliated with CBS, ABC and NBC until a second station in the same city affiliated with NBC, leaving KFBB-TV with the remaining two networks.

KFBB-TV had the typical problem of starting in a town where there were no TV receivers. Bud Blanchette, who has been with the station since its inception and is presently general manager, recalls the situation.

Building our audience was pretty tough. Everybody was selling TV sets who thought they could make a buck at it. Hardware stores, furniture stores and even some sewing machine shops were selling sets. Most of the sets they sold are hardly heard of today, like Halicrafters. Some of these characters were even making their own sets to sell.

In a farm market like this you often had farmers coming in from great distances in one large group. They would gather everybody from their area and accost a local dealer. They'd say, "What kind of a deal can you give us on television sets?" He'd say, "One?" And they'd say, "No, five." The dealer would always give the group a cut in price. That's the way TV was sold around here.1

1Conversation with W. C. (Bud) Blanchette, manager KFBB-TV, Great Falls, Montana, May 18, 1965.
Also typical was the problem of obtaining network programming. Blanchette vividly recalls some of the problems involved in getting needed network offerings into the Great Falls area.

Back in 1954 and 1955, we would clear everything off the air to accommodate the World's Series games. As we had no other way of getting these network shows in, we would film the games right off a picture tube in Fargo, North Dakota, and fly the films to Great Falls on National Guard planes, hoping we didn't lose too much time.2

Rather than going along with Ed Craney's idea of one large corporation to supply network for all stations in Montana, KFBB-TV decided to build its own microwave on Sulgrum Hill about 35 miles west of the city. At that point it was possible to pick up the Butte station, relay the signal to KFBB-TV and rebroadcast the Butte programs. Butte picked up its programming from Salt Lake City off the air.

Although it was possible to physically secure network signals, national advertisers were hesitant to pay for their commercials broadcast in the Great Falls area. They did not consider Great Falls a profitable market, according to Blanchette.

It sounds reasonable to assume that once you have put several hundred thousand dollars into a television station that your programming comes automatically. That didn't happen to us. I can well remember making trips to New York and Chicago and practically getting on my knees and begging the networks for shows like Ed Sullivan. It's remarkable, but the questioning always ran, "Where did you say you were from?" I'd say, "Great Falls, Montana." They would always ask how many people we had there, and I would tell them that we had 60,000 people. The response always was, "That's a pretty small market."3

Because national advertising was so difficult to obtain, KFBB-TV

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2Ibid.
3Ibid.
began to sell local advertising as actively as possible. Because of the capital reserve, the station had to be financially stable after its first year of operation or face the possibility of leaving the air. Within the given time, local sales were sufficient to keep the station operating.

Among the problems during the first years especially, was the scarcity of television trained personnel. Salesmen found selling commercial time for television was quite different than for radio. Additionally, no one in Great Falls was familiar with the techniques of television production. Blanchette recalls a partial solution was found in KFBB radio.

We brought in radio personnel to staff the station. Without their help, I don't think we could have made it. There simply weren't any trained personnel in the area. Today you have people coming from colleges in the state who are trained, and there are other stations to draft from.4

When television was able to stand on its own, it began to enter into active competition with the radio operation that had previously saved it. Each medium actively sold advertising against the other although both had common ownership.

Advertisers initially reacted against the higher television advertising rates, and were not convinced that television was an effective selling medium, according to Blanchette.

But advertisers began to realize that here was a medium that could move goods and services above all others. Dealers began to realize that the combination of sound, sight and motion did sell merchandise, and was well worth the additional cost.5

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4Ibid.
5Ibid.
Blanchette recalls many radio operators were also slow in accepting the presence of television.

Some radio stations in the area thought that television was a temporary thing. They thought that God had not meant pictures to fly through the air and it could not last. But they began to adjust. Their revenue took a hard knocking for a while and they had to change their programming considerably. They learned and began to fight back in good hard style.

But radio in Great Falls, as everywhere, began to feel the economic pressure of television competition. On a national scale, radio had to completely change its approach to survive. One student of broadcasting described the situation:

By the end of the freeze, in 1952, the position of network radio had begun to deteriorate seriously. It was freely predicted by many observers that network radio was doomed. The networks tried various strategies to stem the tide. A general overhauling of rates took place, with emphasis on reduction of nighttime hours, when television had its greatest impact. New sources of business were sought through programming and scheduling devices intended to attract the smaller national and regional advertisers to network radio.

But the impact of television could not be stopped and network services began to diminish. Radio found it was forced to rely on local sales.

The opposite was true for television. In 1948 national sales accounted for $2,500,000 of television's total income, and local sales totaled $6,200,000. By 1963 national sales had risen to $537,900,000. Local sales accounted for only $256,100,000.

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6Ibid.
7Sydney W. Head, Broadcasting in America (Boston, 1956), p. 184.
National sales for any television station can be a highly profitable matter, and for many it is their bread and butter. For this reason, KFBB-TV and all other stations were actively seeking network programming.

Before KFBB-TV was able to install microwave for live programs, it sought needed network programs by any means possible, including the expensive system described during the World's Series.

As previously noted, microwave was installed in 1956 and profitable network programs began to flow into Great Falls.

While KFBB-TV was firmly establishing itself in the community, a young man was operating radio station KEGF in the same city. Dan Snyder sold his station in 1957 and applied for a radio station license in Rapid City, South Dakota.

But his friends insisted Great Falls was large enough for two television stations and he should start a second one. Snyder told them it would be impossible because Bob Laird, an engineer from Salt Lake City, had already made application for the channel that was available. Snyder's friends then suggested he might go into partnership with Laird.

The suggestion interested Snyder and he wrote Laird. The latter indicated he had no immediate plans for the station because he could not raise the capital. After a series of phone calls and a meeting in Great Falls, the two formulated a plan.

Snyder would lend Laird the money to start if he could buy 50 percent of the business. Laird agreed and the two began as Rocky Mountain Broadcasters.

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9 The call letters were changed to KUDI in 1957.
The original application called for a 100-watt transmitter. Snyder thought such low power would not cover the city, so they decided on 600 watts and bought a new transmitter. The rest of the equipment was either second hand or army surplus.

With very little capital, and a lot of used equipment, the two began to build a television station. Snyder recalls the early days:

We went ahead doing most of the work ourselves. Our target date was June 6, 1958, but we didn't make it until July 27. A tower company installed the base and the tower, but we hung the antenna on top by ourselves.

The day we went on the air we had projector trouble. That was the one projector we had left. The other didn't work at all. We got some of the trouble worked out and went on the air anyway at 6:00 P.M. At 6:45 we were off the air.10

A 75 mph wind had knocked a mooring loose on the antenna, changed the capacity of the antenna feed and destroyed the transmitted picture. Snyder and Laird worked until 3:00 A.M. trying to repair the damage, but were unable to do so.

Snyder was out of money and Laird had no more used equipment. Additional capital was badly needed.

Snyder decided the only solution was to form a new corporation, retain 51 per cent of the stock using the present station and equipment as collateral, and sell the remaining 49 per cent. Although Laird agreed they were in serious trouble, he did not like Snyder's idea and subsequently sold his KRTV stock to his partner.

In an effort to raise the needed capital, the remaining partner formed a new corporation, Snyder and Associates, retained 51 per cent

10 Conversation with Dan Snyder, majority owner KRTV, Great Falls, Montana, April 8, 1965.
of the stock and sold the rest.

Snyder was successful in his sale of stock and was able to buy most of the new equipment he needed to begin operation again except for a new transmitter which he hoped to purchase on credit from RCA. But two major obstacles remained.

Snyder and Associates was having difficulty getting a credit rating from RCA because they were an unknown company. A salesman had sold the equipment to KRTV, but the RCA general offices in Camden, N. J. were hesitant to approve the sale on credit. And if they did approve, Snyder was faced with the threat of a nationwide truck strike which would delay delivery. Time was important because KRTV had a payroll of five to maintain and had a number of films on hand which had been rented but were not being used. Money was flowing out without hope for an income until a new transmitter could be installed. Snyder decided immediate action was necessary.

We were afraid the equipment wouldn't arrive, so in the middle of the afternoon we got in the station wagon and drove to Camden, New Jersey, where we hoped we could talk RCA into the credit and bring the equipment back ourselves.11

RCA was not willing to give credit. After three days of fruitless discussions, Snyder and Don Bradley, his program director, decided to drive to Schenectady, N. Y., in hope of buying a new transmitter from General Electric.

In the meantime, the RCA salesman in Montana who had originally sold the new equipment to KRTV heard of Snyder's problems and called

11 Ibid.
Camden. Snyder recalls how matters progressed from that point.

He called them. Then he called us. Then he talked with them. They called us, and we talked with them. After we had a sufficient number of conversations they decided to give us the credit, providing I would personally co-sign the note with my company. I said, "Hell, yes." Of course, I wasn't worth anything either.\(^{12}\)

With the problem finally negotiated, Snyder and Bradley rented a U-Haul trailer, installed a hitch and overload springs on the station wagon, loaded the transmitter and drove away. But instead of coming directly back to Montana, they decided to drive to Quincy, Illinois, where their damaged antenna was being retuned at the Gates Radio Company. Snyder was still worried about the truck strike.

After waiting two days for repairs to be completed on the antenna, the two rented a larger U-Haul, loaded their transmitter and antenna and drove back to Montana.\(^{13}\)

Since Laird had retired from the company, a new engineer was hired. He was given the new equipment and told to make it operational in 30 days. He did. KRTV went back on the air October 5, 1958.\(^{14}\)

While Snyder was working out his original problems, KFBB-TV was busily becoming an established and profitable television station.

Feeling a responsibility to do something with news, KFBB-TV produced minimal newscasts consisting of UPI wire copy and local stories from station personnel, mainly salesmen, who might happen onto an event.

\(^{12}\)Ibid.

\(^{13}\)Conversation with Don Bradley, manager KRTV, Great Falls, Montana, April 8, 1965.

If the story required a picture, someone from the station who was not busy at the moment would take still shots for later broadcast.

In time, possibly feeling the effects of competition, KFBB-TV began to expand its news coverage. A news department head was brought from Omaha. He then hired two assistants and began to cover local and state news in a professional and thorough manner.

The news department also expanded into the production of documentary films. Although the station is presently producing 13 for the Union Oil Company, most are for local or regional showing. A recently acquired sound on film camera is expected to further increase the quality of news and documentary programs.  

A year before KRTV arrived, KFBB-TV produced the first remote live telecast in Northern Montana. Microwave facilities were rented from Mountain States Telephone and a camera was taken to the dedication site of a new church. Since that time telecasts have originated from the College of Great Falls, the Great Falls country club, and the Montana State Fair. The station also produced a number of news specials during the 1964 floods.

As remote equipment is extremely expensive for small market stations, KFBB-TV prefers to rent equipment from the television studios of Montana State University in Bozeman and the telephone company.

KFBB-TV thinks of itself as a regional television station with many interests outside the Great Falls area, according to Bud Blanchette.

The coverage is about 17 Northern Montana counties extending from East Glacier down to Harlem in Blaine County, and from

\[^{15}\text{Blanchette, op. cit.}\]
Lewistown in Central Montana to Helena and as far north as Bigfork. There are a great many groups in that area, and many come to us with programming suited to their special interests. This is sometimes rough when you have network programming up to here, but we try to accommodate as many as we possibly can.16

While KFBB-TV appears to have been successful soon after its beginning, Snyder and Associates found they were having extreme difficulties establishing a second station. Snyder recalls his economic problems.

We almost went broke several times. We owed film companies. We owed everybody. After we began the second time, we didn't have any operating capital and we couldn't find any banks that would lend us money. We finally got a loan from the First Westside National Bank. It's just a small bank, but Jim Connely, the president, had faith in us.17

The $25,000 loan was used to pay debts that had accumulated while the station had been off the air.

The studios, transmitter, offices, storage space and control room were all housed in a small 28' x 40' building. The new transmitter was much larger than the former and took nearly all of the available studio space.18 Don Bradley gave an account of the resulting difficulties:

The first day we went on with that tiny studio, we had furniture and appliances [to be advertised] outside the door because we didn't have room inside. We'd bring each piece in individually, show it and bring in another. It's a good thing it didn't rain.19

Snyder recalls the single camera had an extremely wide angle lens because there was no room to back up the camera for a wide shot. The

16Ibid.
17Snyder, op. cit.
18Ibid.
19Bradley, op. cit.
cameraman's back was always against the wall.

One other problem was the lack of electronic communication between the camera operator and the control room. Bradley maintains he can still remember hearing voices from the control room yelling "focus" on the air.

But most of the station's serious problems were based on the lack of network programming. Local sales were good but they did not cover the expenses of operating completely on film for 18 months.

KRTV was forced to buy large packages of films, sometimes as many as 65 at a time. Snyder recalls some of the problems involved.

The top ten of a package of 65 movies would be very good. The middle 35 would be mediocre and the rest would be dogs. I mean miserable, terrible shows.\(^{20}\)

There had been too much money invested to not show the movies so Snyder decided to show the worst of the lot Friday night at midnight on the "World's Worst Movies." The films were promoted as the worst imaginable.

Bradley and Snyder acted as hosts for the program and decided they would always produce all of the commercials before the movies started. As the program became more popular, the number of sponsors increased until it often would take an entire hour just to program the commercials before the films. It is conceivable, however, that some of the commercials were much more interesting than the movies. Snyder starred in one.

One night I was testing a power lawnmower that you ride. Well, I started it up and began to ride around in the studio while the camera followed. All of a sudden it started to go faster and I couldn't make it stop. It just kept going, and

\(^{20}\)Snyder, op. cit.
I began to lose control. The camera kept following as I went across the studio. I didn't even know how to shift the gears. I finally hit a typewriter table and mashed it up against the wall and that mower began to climb the wall too. But, I finally got it shut off.\textsuperscript{21}

It is reported that Joe Wilkins, who then still owned KFBB-TV, predicted KRTV would go broke within six months. To Wilkins, KRTV was "that outfit on the Hill."\textsuperscript{22} According to Snyder, "They didn't welcome us. They didn't lift a hand to try to stop us. They thought we would do that by ourselves."\textsuperscript{23}

Because of active competition for program ratings between the two stations, it was important that KRTV establish network programming. Snyder talked with NBC and received a hasty refusal. Since KFBB-TV was basically CBS although it carried programs from the other two networks, the only recourse was ABC. They refused also on the grounds that Snyder's radiated power and low antenna did not give sufficient coverage to warrant national advertising. Snyder wrote NBC again. There was no reply to the letter.

But a year later, in 1960, NBC showed a slight interest. Snyder was then able to arrange a contract and network programming began that year.

However, there still was no microwave service. KRTV, as nearly all other stations in the state, used filmed network programs initially.\textsuperscript{24}

Snyder ordered network service from the Western Microwave Company.

\textsuperscript{21}\textit{Ibid.}

\textsuperscript{22}\textit{Ibid.}

\textsuperscript{23}\textit{Ibid.}

\textsuperscript{24}\textit{Ibid.}
Part of the agreement with NBC was that microwave would be installed in time for the 1960 World's Series. If microwave were not installed in time, the series would revert back to KFB-7 TV, which had carried the games in previous years.

The day of the first game arrived, and the microwave was not completed. The antennas had been installed and a signal was coming into the station, but final wiring was not complete in the control room. Although the picture could be seen on a special monitor at the station, it could not be broadcast.

Don Bradley described the confusion at the scene.

I remember we were showing the people at home the engineers working feverishly on the equipment with a camera that we ran into the control room. We'd look into the camera and say, "See that, folks! We're working on it. Just a minute, we'll have it in just a minute." Then we'd show the picture of the game on the incoming monitor and say, "There it is. There it is, folks. Just as soon as we make this last connection we're going to send it out to you." 25

The 1960 World's Series came to Great Falls in the first half of the second inning of the first game.

There is little doubt that from the moment KRTV began receiving live network programs, competition between the two local stations became much stronger.

In 1961, KFB-7 TV bought the first videotape machine in Montana. This meant that commercials and programs could be pre-recorded at convenient times for later broadcast. It also meant that the quality of local commercials would increase greatly. Videotape is an expensive addition to a small market station, but the end results are generally

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25 Bradley, op. cit.
effective and profitable. Blanchette maintains that videotape has become a way of life at KFBB-TV and a necessary tool for operation.  

In February, 1962, to increase coverage, audience size and national advertising rates, KRTV expanded its studios and transmitting equipment. The tower height was increased by 300 feet and the transmitter power increased to 30,000 watts.

At the same time, Snyder began a series of live daily programs including an hour-long adult program, "Today in Montana," and an hour-long children's program, "Playtime."  

"Today in Montana" consists of news, exercises for women, interviews and an occasional discussion. The program has been received well by Great Falls viewers and in 1964 won the Greater Montana Foundation Award for the best locally produced television program.  

"Playtime was established by Snyder to give pre-schoolers something other than daytime serials and cartoons to watch. Snyder wanted a program which would have educational features without losing appeal for children. The program consists of stories, participation games, and specific days devoted to pets, hobbies, cowboys and Indians. One regular feature is an Indian chief who teaches the children sign language. It is reported that although the chief (High Tower) dresses in authentic apparel, he is not really a chief. He is Dan Snyder in disguise.

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26 Blanchette, op. cit.

27 Snyder, op. cit.

28 The Greater Montana Foundation is a non-profit organization established by Ed Craney "to better the quality of broadcasting in Montana." The foundation gives yearly awards to stations which have applied in writing giving cause why a particular program or person should be recognized.
These two programs were the first to come from the expanded studios of KRTV which boasted a unique lighting system for Montana television stations. Snyder cited his reasons for establishing a new lighting system.

It used to get awfully hot under the old lights, so we decided to try something new. We experimented with special flourescent lights which, of course, are quite cool. We lined the whole ceiling with flourescents, and it worked. We used a few scoops and fresnels for fill-light and dramatic effects. The flourescents above the actors caused shadows on their faces, but the scoops took care of that.\(^ {30}\)

Snyder had learned in radio that remote broadcasts were always popular and generally profitable. The first remote occurred in 1961 from an appliance store. With its success Snyder decided to take his equipment to the Northern Montana State Fair for an entire week.

Both studio cameras and related equipment were taken from the studios and moved to the fairgrounds. This meant that there could be no live productions from the studios for a week.

At the fairgrounds, one camera was placed on a scaffolding and another on the ground. The high camera was used for televising horse races, the other for interviews. KRTV carried live continuous coverage of the fair during daylight hours for a week. Snyder recalls some of the activity.

When we got there, we didn't really know what to do. But we did it anyway. We brought Hereford bulls over to the camera along with chickens and ducks, rabbits and farmers. We just talked to people all day long.\(^ {31}\)

Snyder reports that what was probably the most ambitious remote

\(^{30}\)Ibid.

\(^{31}\)Ibid.
television broadcast to date in Montana was completely sponsored, made a profit and was duplicated for three years.

KRTV purchased a small videotape machine in 1964. Only portions of the fair were televised in that year by delayed recording. Recording tape eliminated the need for expensive microwave facilities from the fair and, as in the case of KFBB-TV, also proved to be a valuable commercial tool at all times.

Snyder used videotape exclusively during the June 1964 floods. While flooding was at its peak, Snyder loaded the portable tape machine, a camera and a microphone in his station wagon and produced 20-minute daily reports from the Great Falls area. 32

KFBB-TV was not as fortunate as flood waters reached the two-foot level in all areas of the one-floor station with the exception of the raised control room. All broadcasting was halted for days. The station later produced a number of documentary film programs concerning the flood. 33

By this time KRTV was a financial success. Snyder and Associates grossed $120,000 the first year of operation and $450,000 in 1964, although their costs have not risen appreciably. Before live network was obtained 95 per cent of the station's income was from local sales. In 1964 local commercials accounted for only 40 per cent of the gross income. But local sales have not decreased. In fact, they have increased. The great difference in the two incomes is simply that national advertising accounts have risen sharply over a short period of time. 34

32 Ibid.
33 Blanchette, op. cit.
34 Snyder, op. cit.
KRTV has never tried to compete with the news organization of KFBB-TV. Snyder believes that the cost of a news department is too high to warrant its existence at this time. However, KRTV has a cooperative association with KMON radio in Great Falls for news. The two employ a full time newsman who does one television newscast a day. But Snyder thinks that perhaps KRTV should expand its news coverage when it becomes practical.

This is the one area where I don't think we have done a bang-up job. There are others in the state who do a tremendous job with news, but I don't feel we have hit our stride yet. We cover most of the news here. We don't miss anything, but there is no depth.35

In keeping with a strong news department, KFBB-TV had made it a policy to editorialize periodically when conditions warrant. Unlike most newspapers, but consistent with most broadcasters, the station does not editorialize on a regular basis.36

Snyder has taken a more rigid position. Although he has produced a few editorials, he believes television is an entertainment medium primarily and any informational material is secondary in nature. He thinks the question of editorials is not a simple one. A lot of stations editorialize for motherhood and against sin. They call that editorializing. I don't. I think I would rather expose both sides of a question and let people make up their own minds. There are enough people making up other people's minds.37

Another problem concerning editorials, according to Snyder, is the matter of FCC rules and the "fairness doctrine." "It's a long,

35Ibid.
36Blanchette, op. cit.
37Snyder, op. cit.
complicated set of rules and regulations which have been interpreted and reinterpreted. They make it difficult to editorialize. Broadcasters do not have the same freedom of expression that newspapers do."  

Concerning relations with the Great Falls Tribune and Leader, Blanchette of KFBB-TV found the situation degenerated considerably after the paper had greeted the arrival of the station with enthusiasm.

On March 18, 1954, the paper devoted 13 pages of one issue to television. There were lengthy stories describing how KFBB-TV was constructed and how it operated. Other stories in the issue described methods of best receiving television and what programs were most popular in other areas.  

The day KFBB-TV went on the air the Tribune indicated "hundreds of residents in North-Central Montana have awaited the arrival of this marvel of science and engineering into this area."  

But this warm greeting soon deteriorated into a very cold relationship, according to Blanchette. He maintained the newspaper later completely ignored the existence of television.  

Snyder reported approximately the same kind of relationship.

On May 1, 1965, the Cowles Publishing Company purchased and began operating the Great Falls Tribune and Leader. The new owners hold extensive broadcasting properties, primarily in Minneapolis and Kansas. Blanchette reports a complete reversal in the newspapers.

38 Ibid.
39 Great Falls Tribune, Great Falls, Montana, March 18, 1954.
41 Blanchette, op. cit.
attitude.

There has been a radical change. It's as different as day and night. They are most cooperative and helpful and we are completely delighted with our association with them.¹²

Don Bradley, manager of KRTV, reports he has not noticed any improvements in relations with the newspaper.¹³

Cable system competition has never been a serious threat in Great Falls. Although Snyder and Blanchette are concerned about CATV, neither has had to face problems such as existed in Helena, Missoula, and Kalispell. The Great Falls cable system is quite small in comparison to some others in Montana. The system now has 2,400 subscribers in a city of 10,800 homes.¹⁴ In contrast, the Missoula system has 6,400 subscribers with a city population of 7,700 homes.¹⁵ Most cable companies have a much higher subscription rate according to their potential than Great Falls. Both Snyder and Blanchette report the cable has not made outstanding inroads into their Great Falls audience.¹⁶

¹²Telephone conversation with W. C. (Bud) Blanchette, manager KFBB-TV, August 11, 1965.

¹³Telephone conversation with Don Bradley, manager KRTV, August 11, 1965.


¹⁶A detailed description of the Great Falls cable system appears in "The Development of Cable Television in Montana" in this thesis.
A. J. Mosby, a pioneer Montana radio broadcaster, watched the growth of television in the United States anticipating the day when it might be practical for Missoula. At broadcasting conventions, he carefully inspected new equipment and made a list of his needs.

When it appeared television might be a reasonable investment, he began to search for a transmitter location near Missoula. With the use of an airplane and a number of maps, an unnamed mountain was located north of the city. It later was appropriately dubbed TV Mountain.

After purchasing equipment, an access road had to be built up TV Mountain for construction crews. In the spring of 1954, while snow still covered the mountain, concrete was poured for the transmitter building and antenna foundations. At the same time, a prefabricated steel building was on its way from San Francisco. Mosby recalls West Coast construction crews had never been on mountain roads and

were scared to death. Of course, there were deer, elk and brown bear running around. They had quite an exciting time. They brought cameras with them and the story got into some of their trade magazines.1

In order to keep the initial investment as low as possible, Mosby purchased as much used equipment as he could find and constructed a combination studio and transmitter site on TV Mountain.

On July 1, 1954, KGVO television went on the air, but not without

a few bad moments just prior to air time.\textsuperscript{2}

The mayor and a number of other important Missoulians had been invited to the opening ceremonies. They had been transported to the top of the mountain in an old Chevrolet bus which Mosby had purchased to bring his personnel to work each day. At 3:30 P.M., a half-hour before air time, the dignitaries were practicing their speeches and the piano was being tuned in the studio. An engineer discovered no one had remembered to bring a studio microphone. Fortunately, there was one in the transmitter room for the announcer. Mosby recalls the scramble to convert a corner of that room into a studio.

We were all busy with knives scraping off wires and sort of splicing them together. By four o'clock we got the thing on the air. We then introduced all the hotshots in town who wished us well. It was quite exciting, and quite a scramble.\textsuperscript{3}

Similar to other stations in the state, KGVO-TV had no live network. All programming was on film except for a few local live programs conducted by the university and local high schools. The station initially broadcast from 4 P.M. to 7 P.M., daily.

Mosby reports very little difficulty during the summer months, but winter posed great problems in transporting crews to the studio. After one winter of daily trips up TV Mountain, the bus began to disintegrate. It soon became apparent the combined operation was not practical.

The American Legion Hall on West Main Street in Missoula had been closed for some time and Mosby began to think of the building in

\footnotesize{\textsuperscript{2}Television Factbook (Washington, D. C.: Television Digest, Inc., 1965), p. 374-5.}
\footnotesize{\textsuperscript{3}Mosby, op. cit.}
terms of conversion to a television studio. He asked the owners to
dinner to discuss a proposition. As they were coming to terms, fire
bells began to ring in the vicinity. They dashed out of the restaurant
to find the Legion Hall on fire.

The station was forced to remain on the mountain during the
second winter of operation. The following spring, Mosby again looked
at the Legion Hall, found it could be reconditioned and made what he
terms "a good investment." That fall, KGVO-TV moved into the new
quarters.

Two other major events occurred at the same time. Mosby changed
the station call letters to KMSO-TV, thinking it might bring the station
and the community closer together. 4

He also signed a contract with CBS television for network affili-
ation and built a microwave link from a farm on the Frenchtown road to
Missoula. He was able to find a weak, but usable, signal from KXLY-TV,
Spokane, Washington, at that point. Unlike other stations in Montana,
KMSO-TV was able to begin network programming with live programs rather
than film.

The microwave pickup was not especially good, however, and Mosby
decided another location should be found. After some searching, a
microwave link to Missoula was installed from antennas on Big Mountain
near Whitefish, Montana, where the Spokane signal was quite strong.
Mosby reported the station began to expand rapidly at this point. Good
network programming began to bring profitable national advertising into

4 KMSO is the airline designation for Missoula.
the station as well as a bulk of material which would allow the station to be on the air a greater number of hours.

The new microwave was built in 1957 in conjunction with a microwave feed to the Missoula TV Cable Company, which was under construction at the same time. Although, from outward appearances, there was a spirit of cooperation, both KMSO-TV and the cable company were in active and sometimes bitter competition. Unspoken hard feelings finally led to an open conflict between the two interests second only to the Helena problems.

In 1958 KMSO-TV proudly announced it would be able to carry the entire World's Series using the new microwave. A great amount of money was spent advertising on radio, in the local newspapers, the Daily Missoulian and the Missoula Sentinel, and on KMSO-TV. But when the day of the series arrived, no one in Missoula could receive a clear picture. A herringbone pattern appeared as interference across every television screen.

Mosby immediately called in an FCC inspector, who found a device in a small rented chicken coop in the Rattlesnake area near the site of a translator was picking up KXLF-TV in Butte and re-broadcasting the signals on channel 11. Channel 11 had been reserved for educational purposes.

Mosby recalls he and the FCC inspector walked up to the chicken coop which had been converted to a slaughter house.

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6 Mosby, op. cit.
There was some smoke coming out of the building so I hollered. A fellow came out wearing a rubber apron and he had the innards of a cow wrapped around him. This guy said he didn't know anything about it. Then the federal man spoke up and said he was a representative of the United States Government, and he could be thrown into the hoosegow if he didn't tell. Well, he opened up. They found out that it was the cable company that was doing it.8

It was found the jamming device was picking up the KMSO-TV signal and rebroadcasting it on channel 4, which is the Butte frequency. The Butte translator then rebroadcast both channel 4 signals on channel 11. Apparently this caused the translator to operate off frequency enough to confuse the signal of channel 13.9

A few nights later about $800 worth of jamming equipment was stolen from the chicken coop. At about the same time $1,000 worth of equipment was stolen from the channel 11 translator.10

Glenn Tarbox, who was operating a small cable company in the Missoula Rattlesnake district, and who helped Mosby locate the chicken coop, recalled that a few weeks after the equipment was stolen it appeared in a heap in front of a local janitorial service office.11

The University of Montana also was involved in the incident because Dr. Erling Jorgenson, then director of radio and television, lodged a formal complaint to the FCC against the translator operators. He maintained the device was illegal on two counts. Channel 11 was an

8Mosby, op. cit.
9Montana Kaimin, op. cit.
10Ibid.
educational allocation and was not being operated by an educational organization, and the translator was not licensed by the FCC.\(^2\)

At this same time Ed Craney was beginning to experiment with translators in the Butte area. He had long contended translators are a useful and necessary tool to broaden the coverage area of a television station. At that time the FCC would not license translators and Craney was trying to convince the commission that the use of translators should be recognized.\(^3\)

The Butte translator had been constructed by Mills Folsom and James Barr, both of Missoula, to provide persons not connected to the cable system with an additional television channel. The device was financially supported by contributions from television set owners who wanted the service.

Barr reports the KMSO-TV incident was the second time a jamming device had been used on his translator. The first occurred after it had been in service only a week. Persons watching the translator signal complained of a pattern of dots appearing on their television screens. Barr constructed a direction finder and located the jamming source on Mount Jumbo a short distance from the translator. Since the FCC considered translators illegal television transmitters at that time, Barr was not able to make a formal complaint to either federal or local authorities. Because there could be no investigation of the matter, Barr also was unable to prove conclusively who had been responsible for

\(^2\)Montana Kaimin, op. cit.

\(^3\)Conversation with Ed Craney, past owner KXLF-TV, KXLJ-TV, Butte, Montana, May 20, 1965.
the jamming device. After Barr made his findings known to a number of people in the Missoula area, the jammer suddenly disappeared.

As the Missoula TV Cable Company began to grow and eat into KMSO-TV's audience, it became apparent the station had to extend its coverage as much as possible. Mosby discovered his transmitting antenna was out of date and quite inefficient. He reports the signal was very scattered and spotty in outlying areas and even missed portions of the city.

The thing was old-fashioned and not as efficient as the new RCA antennas. It was nothing but a steel pole with steps on it. It didn't have any of the new gimmicks. So we bought the new RCA antenna and they made arrangements to put it up.

The Seattle office of RCA hired a Missoula firm to install the antenna. In the spring of 1963 the company began installation, using what Mosby described as "light equipment and drunks hired off the street." Part of the installation went quite smoothly, but as the top section of the $100,000 antenna was being lifted into place, a jin pole snapped and the entire antenna fell to the ground on top of the dismantled old antenna, completely ruining both and just missing the transmitter building. KMSO-TV was forced to broadcast on a small emergency antenna until a new one could be installed. Mosby and his station manager were at a broadcasting convention at the time, and the chief engineer had to tell RCA the bad news.

I called Roy Varda, the RCA man who had sold us the antenna. I told him we needed a new light for the top of the tower. He said, "What for. The one we gave you was all right. Did you

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14 Conversation with James Barr, operator Missoula Rattlesnake translator, Missoula, Montana, August 11, 1965.

15 Mosby, op. cit.
break it?" I said, "It broke a little when they dropped the antenna." There was a long silence on the other end. Then a gasp and he said, "You're putting me on."

Varda flew to Missoula, declared the antenna a total loss and ordered another. It was three months before a new one could be installed, this time by a firm from California.

Although KMSO-TV experienced most of the usual growing pains of pioneer stations in the state, it had one problem which was unique. Most broadcasters will admit they have trouble keeping help, but Mosby seems to have had more than most. His greatest problem was keeping station managers. During the years he controlled the station his managerial turnover was as often as every six months. He described the situations:

These people represented themselves to be managers and had some very nice letters of recommendation. They were intelligent people to talk with, but they couldn't sell. They liked show business and loved to be on the air but they didn't know anything about the business angle. If you are a manager you have to take care of the business. They like to make a big noise, and get all the money, and tell everybody how smart they are, but they can't manage.17

Mosby described his past managers as a Gypsy group who traveled with good letters of recommendation because their past employers wanted to get rid of them.

Mosby began to lose interest in his station because he was not able to find competent managers and had too many other business interests to manage the station himself effectively. Dale G. Moore, who had purchased KGVO radio in 1959 from Mosby, had been interested in television

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16 Conversation with Charles E. Meyer, chief engineer Radio-TV Studios, University of Montana, Missoula, Montana, April 1, 1965.

17 Mosby, op. cit.
for some time. The two got together, but were unable to come to terms. Moore then applied for channel 8, which was allocated for a second commercial station in Missoula. He reported spending $10,000 in filing for application including engineering surveys. Moore admitted a second commercial station in Missoula could not survive the competition of an established station and an active cable company, but went ahead with building plans.

In the fall of 1964, he and Mosby came to terms. On September 15, 1964, Moore purchased 80 per cent of KMSO-TV for $750,000, giving one share to his wife and retaining 79 per cent. Mosby retained 20 per cent because, he said, he enjoyed the television business and wanted to keep his hand in.18

Moore found the station to be in extreme need of repair. Most of the original equipment was still being used. And much of it was second hand when the station was built.

Moore also found a basic core of personnel quite loyal to the television station and the former management. Although he thinks the easiest way to take over an operation is to bring in a new crew, he kept the staff he found and tried to work with them. He found most of them were quite solid in their job, but they never had much expected of them. Therefore, they didn't give much. Also, most of them never had an opportunity to improve if they wanted to except for the techniques they could observe from Spokane over the network monitor.19

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18Conversation with Dale G. Moore, majority owner KGVO-TV, Missoula, Montana, June 16, 1965. Mosby's, Inc. was the original licensee. Mosby and Moore formed KMSO-TV, Inc., which purchased the station.

19Ibid.
To expose his staff to new television production methods, Moore flew six of his key employees to Great Falls, Billings, Spokane, Wash., Casper, Wyo., and Idaho Falls, Idaho. Moore also subscribed to every service he could find which discussed television production.

Moore started with a staff of 12, which he considered below minimum. Within nine months he added 20 persons.

But the problem of poor equipment still remained. He recalls that he had no idea how bad the equipment was until after he had purchased the station.

I didn't examine the equipment in detail when I bought it. I felt I could get two or three years out of the equipment and buy small quantities at a time. I brought several consultants in from New Jersey, Spokane and Seattle and got their evaluation on how long I could operate with a good picture. It became apparent that it was already impossible to continue with it. We shouldn't have even been on the air. We are licensed for 220,000 watts and the old transmitter was putting out only 110,000. We have to build a new station for all practical purposes.20

Moore went into action immediately. He began to look at new equipment and plan for new facilities. The first order of business was to renovate the studio. By September, 1966, he plans to have a new control room and new equipment including console, switcher, microwave, slide projectors, transmitter and stand-by generators.

By June, 1965, $200,000 in new equipment had been ordered. And by September, 1966, another $164,000 will be spent on the addition of video tape. Moore believes the size of the station and market does not warrant such expenditures, but he has a great desire to make his station the finest in Montana.

20Ibid.
The new equipment and expanded staff is also a device to improve the public image of the station as much as possible. To that end he changed the call letters from KMSO-TV to KGVO-TV on January 1, 1965. KGVO radio has a public acceptance and good image. KMSO-TV did not. The call letters were changed to cash in on the KGVO reputation through name association.

Further plans call for the consolidation of radio and television in the same building, complete automation of the traffic department through an IBM service recently purchased by Moore, and an increased emphasis on color.  

21 Ibid.
THE KALISPELL SITUATION

In July, 1957, KGEZ-TV went on the air in Kalispell, Montana. Less than a year later, on April 9, 1958, the station ceased operation. Many Montana television broadcasters firmly believe the station was forced out of business because of competition from the Kalispell cable company.

In Kalispell, the TV station went off the air. Cable contributed to this.

It is little wonder that the small market operator in Montana well remembers a station going dark in Kalispell with the incursion of CATV signals into that market.

Kalispell would be on the air today if it weren't for cable.

The station went off the air because of cable. It just couldn't compete. It had a lot of money behind it, but it lost a lot.

Joe Sample of KOOK-TV admitted there might be some doubt concerning the actual cause. "You hear a lot of arguments about Kalispell. It looks

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2Ibid., p. 3645.

3Conversation with Dan Snyder, majority owner KRTV, Great Falls, Montana, April 8, 1965.

4Conversation with W. C. (Bud) Blanchette, manager KFBB-TV, Great Falls, Montana, May 18, 1965.

5Conversation with Ed Crane, past owner KXLF-TV, KXLJ-TV, Butte, Montana, May 20, 1965.

like it was a marginal operation from the beginning.\(^7\)

The late Frank "Skinny" Reardon, a radio broadcaster in Butte and later in Kalispell with KGEZ radio, decided to try television in Kalispell in the late 1950's.

Kalispell, lying in a valley surrounded by mountains, is at a considerable distance from any sizeable community and could never expect to receive good usable television signals directly from any neighboring city. I felt a clear obligation as the most successful broadcaster in Kalispell, to meet the local need and desire for television broadcast service.\(^8\)

The Kalispell cable company, Northwest Video, Inc., began its service in 1953, three years before Reardon had contemplated television broadcasting. Unknown to Reardon the cable company was also thinking of building a station. Ironically, the cable company also claimed it was unaware of Reardon's desires and both filed application to the FCC in the winter of 1956 at approximately the same time.\(^9\)

Reardon's plans for KGEZ-TV were quite elaborate. He proposed 8,400 watts of radiated power, 1½ hours of programming each day, live network programs and complete studio facilities.

The cable company proposed a "barebones" operation with a total of two hours programming each day, two full-time employees, no network, no studios and a programming diet of free films obtained from government and public service agencies.\(^10\)

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\(^7\)Conversation with Joseph S. Sample, majority owner KOOK-TV, Billings, Montana, June 10, 1965.

\(^8\)Hearings, op. cit., p. 3646. Reardon’s radio competition in Kalispell was KOFL which was established a few years after KGEZ radio.


\(^10\)Hearings, op. cit., p. 3647.
According to Archer Taylor, a partner in Northwest Video, the cable company reasoning for a "barebones" station was that television broadcasting in Kalispell was something for the future and would take time to develop.

We felt that the day was going to come when Kalispell could support a TV station. We also felt that cable would survive only until a station did come in and develop itself. So we studied the situation and decided that we would just file an application for what we called a barebones type station... realizing that it was a marginal market and that our capital resources were quite limited. We were probably more barebones than realistically possible but we filed an application anyway.11

The cable company's application was filed a few days before Reardon's. In testimony, the latter maintained the cable company had prior knowledge of his application and filed theirs simply to thwart him. He also indicated

the Commission had been able to allocate only one channel to Kalispell. With both the local CATV system and myself applying for the single available channel, my counsel advised me that a competitive hearing would be required; that it would take a minimum two years before the FCC could be expected to reach a decision; and that the proceedings would be very expensive and would demand my presence and that of my staff in Washington for several weeks.12

The two parties, after learning of each other's action, examined their positions quite carefully. The partners in the cable company decided they could not win in a hearing because of their minimal proposal. As an alternate course, they proposed a compromise with Reardon. After some negotiation, Reardon accepted a deal whereby the cable company would withdraw its station application provided it could invest in

11Taylor, op. cit.
12Hearings, op. cit., p. 3646.
KGEZ-TV to the extent of 30 per cent of its issued stock. In addition, Archer Taylor would have a position on the station's board of directors.

Although the station had limited funds, Reardon went ahead with construction and KGEZ-TV went on the air in July, 1957.\(^1\)

It is reported that Reardon was quite confident concerning the future of his station. So much, in fact, that at an early board of directors meeting he told the cable company representative he would force them out of business within six months. Taylor reports he and his partners were concerned even before this warning and decided to bring additional channels to the cable system by microwave in order to compete effectively.

We got in two more channels [on the cable] and we figured this would help us. What happened to us . . . was that we just didn't get any new subscribers. But we didn't lose our old customers—just kind of held our own. Reardon thought certainly we would lose all of our old customers within six months.\(^2\)

Although the television station did not drive the cable company from Kalispell, it did hamper any further growth. However, KGEZ-TV soon found itself on the defensive.

Reardon was quite apprehensive concerning the microwave grant to the cable company for additional channels. He first made a complaint to the FCC through his Washington attorney claiming damages. He was advised that nothing could be done.

The cable company was able to bring in all three major networks from Spokane. To compete effectively, Reardon decided to bring in an NBC

\(^{11}\)Ibid.

\(^{12}\)Taylor, op. cit.
signal from Spokane with a microwave of his own. But he found the solution was not as simple as he thought.

The microwave company which delivered signals to the Kalispell cable company was classified by the FCC as a common carrier. The FCC would not license his microwave on the grounds he could buy signals from the one in use.15

To further complicate matters, Reardon found the microwave was owned by a Kalispell banker who had an association with the Missoula cable company, also being served by the microwave system. The microwave company told him he would be charged $500 per month for its service.

In addition, Reardon had promised KXLY-TV in Spokane $1,500 per month in payment for usage of their programming material. The figure was later adjusted to $5.00 per program.

In later testimony, Reardon was quite outspoken in his contempt for cable companies resulting from this situation.

The microwave companies and community antenna systems claim full freedom to pick up the broadcast signals of any station, and refuse to seek the consent of, or pay, the originating station for such programs. The result of this ridiculous policy clearly penalizes regular broadcast stations and benefits the unregulated CATV systems.16

Six months after the station began operation, Reardon called another board meeting. Taylor recalls the financial report of the station showed that except for amortization payments on the purchase of broadcasting equipment, the station was operating in the black. But Reardon had no capital reserve and was unable to meet the amortization

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15*Hearings, op. cit., p. 3648.
16*Ibid., p. 3649.
payments.\textsuperscript{17}

He personally invested $20,000 in the company. However, at the next board meeting the representative from Northwest Video, Inc. objected on the grounds that Reardon could not issue stock to himself for the money he had invested. It was also decided that the building and equipment could be mortgaged to help raise the $40,000 that was needed to keep the station in operation. Reardon explained the financial problem:

Since I had roughly 70 per cent of the stock interest in the company, this required me to advance $28,000; the community antenna company would have been required to advance $12,000, representing their 30 per cent of the necessary $40,000. I was willing and anxious to advance $28,000 but the community antenna company refused to advance $12,000.\textsuperscript{18}

The cable company's position was slightly different from what Reardon had indicated, however. They did not have the cash because KGEZ-TV's competition had damaged them financially. Furthermore, Reardon told Taylor that he would not invest more money unless the cable company did, or he would reduce the cable's percentage of ownership.\textsuperscript{19}

The cable company then proposed to invest as much money as it could gather in the form of stock and notes. They would then convert the notes to stock and let Reardon acquire more stock or put more of his own money in. This would assure the cable company its interest in the station. The cable company would then abandon the notes which would amount to preferred return for KGEZ-TV. Reardon would not agree.\textsuperscript{20}

\textsuperscript{17}Taylor, op. cit.
\textsuperscript{18}Hearings, op. cit., p. 3651.
\textsuperscript{19}Taylor, op. cit.
\textsuperscript{20}Ibid.
Reardon decided the only solution was an appeal to the people of Kalispell for money. The first appeal netted $13,000. After several more, he had received $38,000. He wanted to issue stock on the money, but needed the board of directors' consent.

He called the cable company representative and asked permission. It was refused unless he would advance the cable company enough stock gratis to maintain its 30 per cent interest. Reardon said he "could see nothing else to do then but to mail back all the money to the people of the community."\(^\text{21}\)

The only recourse was the leave the air. On the night of April 9, 1958, Frank Reardon, in a reported state of intoxication, came to the station and appeared on the air, telling the people of Kalispell he was no longer able to continue operations. According to Taylor, Reardon's remarks concerning cable competition were far from kind.

He came into the station to make some comments and instead read a vitriolic statement. I wish to heavens we had a tape of it because I think we could have filed a damage action against him for some of the things he said. He got so vicious and so vile that even his own staff at KGEZ finally turned him off. We heard about it later, and most people were sympathetic to us, because they felt he had been completely out of line in the comments he had made.\(^\text{22}\)

At this point Northwest Video offered to buy out Reardon. A few months after the station left the air, Norm Penwell, one of the partners in the cable company, arranged to operate the station under a management contract. The station lasted little more than a year.

While the cable company was operating the station another economic

\(^{21}\)Hearings, op. cit., p. 3651.

\(^{22}\)Taylor, op. cit.
problem developed. Kalispell merchants began to ask why they should buy advertising on KGEZ-TV when people were watching the same programs out of Spokane on the cable. Penwell proposed that the cable should physically run through the TV station. He could then switch his commercials from the station onto all of the cable channels giving merchants the coverage they needed for advertising. This arrangement would still give cable viewers the benefit of outside programs, but with local commercials inserted in station breaks by a switching system at KGEZ-TV. Taylor recalls seeking advice on the matter.

I consulted legal counsel, and the advice was, "Well, if you have to do it to keep the station on the air, by all means do it. Anything to keep that station on. But it would be desirable for you first to get permission from the Spokane stations in writing before you do it. Otherwise you may have a suit from them for damages because of deleting their commercials."23

It appeared that this might be the solution to the station's problems. However, just as cable company representatives were about to go to Spokane to talk with broadcasters there, the sheriff's department padlocked the station because of heavy and delinquent bills which could not be paid. In the summer of 1959, KGEZ-TV left the air and did not return.

To say cable television killed KGEZ-TV cannot be substantiated. In fact, the opposite was almost true. The entrance of advertiser-supported television in the Kalispell market completely stopped the growth of cable.

Taylor, in later testimony before a Senate committee, said:

23Ibid.
From the very first, the operation [of KGEZ-TV] enjoyed substantial revenue, but because of a plan and a program schedule which was more pretentious than many broadcast television operations in larger cities in Montana, the operating costs exceeded the revenue.\(^2\)

Although there can be little doubt that cable influence on advertisers hurt the revenue of KGEZ-TV in later years, the fatal blows were apparently dealt early in the history of the station by Reardon himself. From available evidence, it appears the television station was more ambitious at its conception than was practical for a town the size of Kalispell. Reardon was dealing with NBC television for a network affiliation before the station went on the air. His attorney received a letter from the network stating that a quick survey of the area which might be served by a station such as you propose indicates that there would probably not be more than 50,000 or 60,000 people at the outside within the service area of such a station. This is, frankly, only about one-half the number which is generally considered to be the minimum available audience necessary for the economic support of a television station, and I would seriously doubt, therefore, that a station such as you propose could be a profitable venture, at least under present-day conditions.\(^3\)

Many Montana cable operators point to this letter indicating that here is positive proof that Reardon could not have been successful in Kalispell. This, however, is not salient either. Reardon found the advertisers and, as has been previously mentioned, the station had a substantial income, according to one of the owners. It appears that Reardon made his mistake in purchasing more equipment than realistically was practical for a television station in Kalispell. Had his equipment

\(^2\)\textit{Hearings}, op. cit., p. 3892.
\(^3\)\textit{Ibid.}, p. 3899.
amortization payments not been as high as they were, it is possible
KGEZ-TV would be on the air today.

Another problem, although not as serious perhaps, is that,
according to Archer Taylor, the station was under-financed from the
beginning. Had Reardon maintained a capital reserve he might have kept
the station alive until amortization costs decreased.

Taylor indicated the revenue of the station was "astounding"
from the beginning.26 Most broadcasters will agree this is unusual.
Television stations are generally started with the thought of losing
money for a while until commercial accounts and the number of viewers
can be built up to a profitable level. From available evidence, Reardon
had the income, but not enough to sustain the kind of operation he
wanted.

26 Taylor, op. cit.
Louis Moore and his father, Joe B. Moore, have been operating an indoor and an outdoor theater in Glendive for a number of years. When television began to make its rapid expansion following World War II, the two began to worry about the future of motion pictures and theaters because theater trade magazines gave gloomy reports of television competition eating into box office returns. The younger Moore decided to get into this new and thriving business of broadcasting.

In 1948 he built radio station KXGN in Glendive. His station soon became a financial success and he decided to expand into television. The FCC had allocated channel 18 to the Glendive area. Because channel 18 is in the UHF band and very few television sets at that time were equipped to receive stations with a frequency higher than channel 13, Moore hired a consulting engineer to help find a more common channel in the VHF band.\(^1\) It was discovered that channel 5 could be assigned to the Glendive area.

He then applied for the new channel, was granted a permit, and went on the air with KXGN-TV on November 1, 1958\(^2\).

Moore reports his first few years were difficult because he was wrestling with the common Montana problem of network affiliation.

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\(^1\) The VHF or Very High Frequency band includes channels 2 through 13. The UHF or Ultra High Frequency band includes channels 14 through 83.

I know better now, but we weren't the ones to do studies and involved reports in Glendive. We'd go to New York to see the networks, and they'd ask us where we were from. It was bad enough that we should tell them Montana, but when we added Glendive, well, they'd never heard of it. Then they'd ask for facts and figures. Of course, we didn't have any. No one makes a study in this town. They just lunge and hope for the best.3

Before network was available, Moore experienced great difficulty keeping the station solvent. He reports operating in the red for four years with a minimal staff of nine and very little equipment. The station began operations with only five hours programming depending solely on local programming and as much film material as was available.

In 1962 Moore was able to install microwave facilities near Wibaux, Montana, to pick up and rebroadcast the CBS signals from KDIX-TV 50 miles away in Dickinson, North Dakota.

Typically, the addition of microwave and resulting network facilities began to bring in needed national advertising. KXGN-TV claims a relatively small but nearly exclusive population coverage of 54,000.

As income began to increase, Moore was able to expand his facilities. In 1963 he moved the station's transmitter onto a hill near Glendive, giving the tower a higher location and resultant increased signal coverage.4

At the same time Moore moved his radio and television operations into a larger building in Glendive, providing a combined operation.

The new television studio is one of the largest in the West, with

3Telephone conversation of Louis Moore, majority owner KXGN-TV, July 23, 1965.
4Ibid.
a usable floor space measuring 50" x 60".5

But even in expansion, Moore has kept the relatively small size of his market and the necessarily small scope of his operations in mind.

The KXGN radio and television control rooms are situated beside each other. The radio announcer reads commercial announcements and station breaks on television. When he has work in television, he puts on a long record, slips into the television control room, makes his announcement and returns to his radio duties.

Additionally, one man in the television control room acts as audio and video control operator as well as camera operator.

The one camera KXGN-TV owns is almost completely equipped for remote control. The control room operator can, by pressing a button, make the zoom lens on the camera adjust to its proper perspective and make the camera tilt up and down or pan right and left.

Moore has a staff of 13 in the combined radio and television operation and reports that with careful management he has been able to run the station with a profit for the past two years.

KXGN-TV is strictly a rural station. It aims its entire program offerings toward rural tastes and needs. Moore tries to give the people in his area the type of entertainment they desire plus as much local news and information as possible.

As an example, in the winter of 1964-65 the Glendive area was hit with severe snowstorms. Both KXGN radio and television made an extra

effort to give stockmen storm warnings and imported trained personnel
during the storms to give ranchers advice and technical help over the
air.

When in late July, 1965, tornado warnings were issued for eastern
Montana and North Dakota, KXGN-TV devoted a half-hour to a public
information program telling people what to do in case of tornadoes.

Programming to a strictly rural audience presents some uncommon
problems for KXGN-TV. Network programs are generally suited to urban
tastes because metropolitan areas are generally more lucrative in terms
of national advertising potential.

Because of this, many network programs popular on the East and
West Coasts are quite unpopular in Glendive. Conversely, the programs
that are most popular in the KXGN-TV coverage area are often deleted by
the networks because of a lack of urban support. 6

Although the history of Moore's station is not as colorful as
several other Montana television stations, KXGN-TV was the first to
introduce the adventure of television to eastern Montana and western
North Dakota. Furthermore, it has proved that rural television broad-
casting is economically possible providing the management has anticipated
the needs and potential of the area and geared the station accordingly.

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6Moore, op. cit.
THE DEVELOPMENT OF CABLE TELEVISION IN MONTANA

In the summer of 1952 Archer Taylor and Warren Penwell chartered a plane and flew to the West Coast. They were looking at cable television installations with the hope of bringing technical knowledge back to start a system in Missoula.

When the two were ready to think seriously about a system, they asked permission from the telephone company for telephone pole usage to support their cable. To their surprise, they found another party headed by Pat Goodover, manager of KXLL radio in Missoula, had already signed pole usage contracts.

Although Taylor and Penwell also could have made arrangements for pole usage, they feared a cable race to see which of the two parties could build fastest. Taylor and his partner decided to find another location.

After some searching, they decided the Kalispell area looked promising and began to build in 1953. This system, the first in Montana, carried only KXLY-TV in Spokane.

At this time cable television was a new medium and the Kalispell company, Northwest Video, Inc., was unable to secure enough investors to build a system which would blanket the entire city. Enough money was found, however, to build the antennas and bring the television signal, by cable, to the city. From there each new subscriber was charged an installation fee of $135 which paid for the construction of the cable into his home. In this way the subscribers themselves paid for much of the system.
As cable systems became an obvious financial asset for investors, they were built completely from money gathered by the sale of stock. When this happened, initial investment fees for the subscribers dropped considerably. Now new subscribers in Kalispell pay only $24.95 installation fee.

Taylor reports that cable in Kalispell was not as openly accepted by the public as desired because of the initially high installation fees.

I think they felt that this was a fly-by-night operation and wouldn't last. Therefore, they wouldn't tie up with it. The thing which really got us rolling was when the bank agreed to finance the connection charge along with the television set. The bank would carry the paper.¹

The Kalispell company also had serious equipment problems, according to Taylor. The major supplier of cable equipment at the time was Jerrold Electronics. But they required a service contract with the purchase of equipment. The cable companies were forced to pay Jerrold $5.00 for each connection made and 25 cents from each monthly use fee. In return Jerrold performed all necessary repair. Taylor and his associates were all engineers and thought they could make their own repairs.

To get away from service contracts, Northwest Video bought its equipment from RCA. But the RCA equipment was quickly abandoned because Taylor thought it was poorly engineered and quite unsuitable. As a result the company bought electronic equipment from a little-known manufacturer called Antennavision. Taylor had seen the equipment and decided it was the best buy under the conditions.

At this same time, the Missoula group was actively preparing to

build a cable system in that city. As previously mentioned, the group was headed by Pat Goodover, manager of radio station KXLL in Missoula, which was part of Craney's holdings. KXLL apparently was quite interested in the possibilities of cable and had written a check for half of the original cable company investment.  

However, the group had considerable difficulty obtaining usable television signals and the cable system was abandoned.  

By this time interest in cable television was growing over the state and an informal group of three men including Craney was reportedly seeking municipal franchises in major Montana cities to start cable systems.  

However, during these developments Craney was drifting away from an interest in cable. He ordered the Bozeman cable company to cease carrying KXLF-TV in Butte. This act signaled the beginning of Craney's deep concern with the growth of cable systems and their effects on broadcasters. It was also the end of his endeavors in the CATV business.  

Meanwhile, the Kalispell system was beginning to gain momentum. In 1954 the system added the new Missoula television station, KGVO-TV. In 1956 a microwave was built on Big Mountain near Whitefish to bring in other channels from Spokane. That was the same microwave that Frank Reardon of station KGEZ-TV in Kalispell had first tried to block and later joined.  

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3Taylor, op. cit.

Ibid.  

Ibid.  

Ibid.
The original microwave equipment was quite unsatisfactory, however. After six months of operation, Northwest Video and a newly organized Missoula system bought the equipment from the original owners, Lambda Pacific, and renovated the entire operation using new Raytheon equipment.6

At about the same time, in the summer of 1954, Charlotte Brader of Havre, owner of radio station KOJM, became interested in cable systems and began to plan one for that area. She later built another system in Glasgow.7

In 1956 Dick Gies and Fred Plummer organized a system in Whitefish. Rather than use the microwave facilities on Big Mountain, they decided to install their own antennas. When the Whitefish system became financially stable, they decided to extend their operations into Missoula.

Glenn Tarbox of Missoula, now manager of the largest Missoula system, was also interested in cable. He made plans to build a system in the Missoula Rattlesnake area because he thought it would be impossible for residents in that valley to receive television, even from a local station.

Tarbox and Gies had a conference to decide the best methods of building their individual systems and which portions of the city each would cover. Tarbox agreed not to extend his system into the city proper providing Gies went ahead with his plans. Tarbox also agreed to manage the Missoula system for Gies. In the fall of 1956, work began on the two cable companies.

6 Tarbox, op. cit.
7 Taylor, op. cit.
Tarbox took his first signal from the Missoula station. Gies and Plummer brought in a microwave link from the Big Mountain antenna. As in Kalispell, they had technical problems with the microwave until both systems decided to buy out Lambda Pacific and install their own equipment.

The two Missoula systems became profitable very early in their histories.

In 1957, the two companies owning and operating the Big Mountain microwave made arrangements with the Helena cable company to feed signals from Big Mountain to Helena. This gave the Helena company extra channels from Spokane.

Two years later, Craney blocked the Helena usage of the Big Mountain signals because of economic injury to his Helena television station.

Like Craney, A. J. Mosby, operating KMSC-TV in Missoula, was also worried about cable competition. He reportedly called Taylor to comment about the economic impact of cable on his system. Taylor recalls the conversation.

At that time Art Mosby and I were very friendly. He said, "Well, in 1956 when the cable got established in Missoula, my profits went way down." I said to Art, "Wasn't that at the same time you moved your studio operations from TV Mountain down to the old Legion Hall?" He said, "Yeah, it was at the same time—it was in October." My reply to that was, "Didn't it cost you a lot of money to make the move?" "It certainly did," he said. The strange thing is that the cost figure he quoted is almost identical with his loss figure. He never could answer that and has never spoken to me since.

In 1961, H & B Communications purchased the Missoula city system.

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8 Tarbox, op. cit.
9 Taylor, op. cit.
from Plummer and Gies.\textsuperscript{10} The new owner maintained Tarbox as manager of
the system and began construction of another in Hamilton.\textsuperscript{11}

At this time cable companies began to spring up all over the state.

In 1961 the Kalispell system extended its lines into Columbia
Falls ten miles to the north. The next year, H & B bought the Whitefish
system from Gies, Plummer and a third member, Francis Bitney, who had
purchased interest after the company was operating. Bitney moved to
Cutbank and built a system with his profits from the Whitefish sale.

A system was started in Shelby, but ran into poor management
problems and was subsequently sold to Ed Stout, who had been a salesman
for the Raytheon Company.

During this time two men who were later to become major powers
in Montana cable systems were getting their start.

In 1954, Larry Paey had gathered money and a construction permit
to begin a cable system in Bozeman. On his way to Bozeman to start
work, his light plane struck a mountain and he was killed. Paey's
cable interests were purchased from his estate by Bob Magnus who went
ahead and built the Bozeman system.

At the same time Paul McAdam was building systems in Livingston,
Dillon, Lewistown and Big Timber. Both had difficulty finding usable
television signals for their systems, so they joined forces and formed
the Western Microwave company, now the largest privately owned microwave

\textsuperscript{10}H & B is now a holding company for the RKO Teleradio division
of General Tire and Rubber.

\textsuperscript{11}Tarbox, \textit{op. cit.}
system in the United States, to bring in distant television stations.\textsuperscript{12}

In early 1959 the two began to pour over maps of Montana, Idaho and Utah. They found the best source of programming for Montana was Salt Lake City, Utah, because that city had television stations broadcasting the three networks and an educational outlet. The stations could be received clearly at a mountain top just south of Pocatello, Idaho.

Even before the microwave system was built, KGH-L-TV in Billings ordered services from the new company in addition to the planned links into Bozeman and Livingston.

By mid-1959 Western Microwave had filed application with the FCC for microwave links between the Idaho pickup point, Kinport Peak, and the Montana areas scheduled for service.

Only 29 days later, microwave stations were installed and working on six mountain peaks. Propane operated electric generators kept the stations operating until power lines could be installed.

In 1959, the company served three customers with a system that spanned 583 air miles. By 1961, Western Microwave had 24 operating microwave stations with applications pending for 16 more. The system stretched 1,400 miles with services to ten cable companies and three television stations.\textsuperscript{13}

In 1965, 83 per cent of Western Microwave's income is derived from CATV customers. The system serves 12 cable systems and eight

\textsuperscript{12}From Coast to Coast, "The Western Microwave 'Mushroom'," Jerrold Electronics Corp., 1962.

\textsuperscript{13}Ibid.
television stations. Additionally, plans are being formulated to serve Montana radio stations with audio for network and special programming in the future.

Because KGVO-TV in Missoula has had consistently poor service from its microwave link on Big Mountain, it plans to use Western's signal offerings. 14

Western is one of two major microwave systems serving a number of Montana television subscribers. The other is the previously discussed Skyline network. 15 The two are very different in raison d'etre, however.

Western Microwave is an independent, profit-making corporation which transports television and radio signals from a pickup point to the various subscribers for a fee. The system serves both broadcasters and cable operators.

The Skyline network is also a corporation, but theoretically non-profit. It is a service owned by the subscribers acting as an advertising representative and a means of receiving needed network signals. Skyline serves only television broadcasters.

Rather than each subscriber seeking national advertising through his own efforts, Skyline acts as an agent for all. The network is able to claim a population coverage equal to the combined coverage of the individual subscribers, thus placing the network at a great advantage over individual broadcasters. Each subscriber is then able to take a percentage of the national advertising income according to his coverage.

14 Correspondence with Paul McAdam, partner Western Microwave Co., June 22, 1965.

There are two advantages in this system: The broadcaster does not have to maintain personnel to secure national advertising, and national advertising is easier to secure through the advantages of group selling.

While Magness and McAdam were expanding their operations, Herbert Anderson of Great Falls formulated plans for a cable system in that city. But in 1961, before Anderson began actual construction of the system, Irving Kahn of the TelePrompTer Company bought all rights to Anderson's system as well as the Cutbank system from Bitney and the Shelby system from Stout. 16

The Great Falls system was plagued with problems from the very beginning. TelePrompTer first brought in Salt Lake City signals by microwave. It was forced to abandon the microwave, however, because the FCC refused to license the microwave stations. It also purchased coaxial cable which was supposed to be the newest and best available. The line amplifiers were also of a new completely transistorized design. Within a few months the amplifiers began to break down. Soon after that the new cable literally began to fall to pieces. This meant that the system had to be almost completely rebuilt.

The company also ran into public relations difficulties. The first manager made many promises in advertisements relative to services and proposed construction dates within certain neighborhoods. He was not able to deliver what he had promised in many instances. The result was that from a potential 10,000 subscribers the Great Falls cable company was able to find only 1,100 by 1964. Under a new manager,

16 Taylor, op. cit.
however, the system added 1,300 subscribers from January 1964 to January 1965.

The Great Falls company had one other problem unique to cable systems in Montana. It was started in a city that already had two television stations which broadcast the major programs from the three television networks.

To counter this competition, the Great Falls cable system became one of the largest in the country in terms of the number of television stations and extra services it provides. The system carries seven television stations, including one Canadian for CBC programs, a weather channel giving continuous local weather conditions by means of a camera scanning various weather gauges, background music, and two FM stations. Persons may subscribe to the FM or TV services individually, or to both. In addition, another television station will be carried within a few months.

Even though the growth of Great Falls cable has been slow and not without problems, the system should grow to the point of a profitable income shortly.17

Cable television has been a sound investment in Montana in all instances except Great Falls and Miles City. Although it appears now that the Great Falls system will be able to survive, Miles City was quite another problem.

A cable company was started there in 1954. As there were no usable television signals in the area at that time, and no microwave

services, the company turned to a joint venture with other companies scattered throughout the United States with the same problem, called ComproVision. Each of these companies installed film projection gear at their headquarters and literally showed movies to cable subscribers. The ComproVision company bought films from networks and sent them in rotation to each member. The system was extremely costly for small cable operations.

In effect, each cable company was running its own closed circuit television station, but without income from advertisers. In Miles City the income from the relatively small number of subscribers did not begin to pay for the film costs. The system ceased operations in January 1958.

Four years later, Ian Elliot of KATL radio in Miles City purchased the company and obtained rights for pole usage from the telephone and power companies. But he found he had to rebuild the entire system. The cable system had been built with open wire twin-lead which was not suitable for Elliot’s needs. He replaced the entire system with modern coaxial cable.

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18 Taylor, op. cit.
20 An early type of cable which consisted of two unshielded copper wires, running parallel and separated by glass or ceramic insulators. The total width of the cable was about 1 1/2 inches. The cable had several drawbacks in that it would not pass high-frequency television signals without severe radiation. As the cable acted as a radiating antenna, it was possible to install a television antenna quite a distance from the cable and receive usable signals for a receiver without physically connecting to the cable system and thereby enjoy the benefits of the cable without paying.
21 Elliot, op. cit.
Not only is the Miles City cable company an interesting case study because of ComproVision, but it recently figured in experiments which have national ramifications.

Telemation, Inc., of Salt Lake City, Utah, recently announced an innovation which will give CATV subscribers a 24-hour news service. The system called "news channel" is simply a television scanning device, such as a camera, which reproduces wire service news on home television screens as it comes off a teletype machine. The news is supplied by Press Association, Inc., a subsidiary of the Associated Press. Cable companies subscribing to the service reserve a television channel for the system and the home viewer simply dials to the allocated news channel. 22

Concerning "news channel," Jerry O'Brien, secretary-treasurer of Telemation and assistant to the president of Kearns-Tribune Corporation, publishers of the Salt Lake City Tribune, stated:

News should be, can be, and eventually will be the most important supplementary contribution of cable television to the American viewer—the most economic and most effective type of service CATV can provide. 23

"News channel" was developed and tested on the cable system in Miles City. Elliot, who operates the system, reported the results of an audience survey indicate the system was successful and enthusiastically accepted by his subscribers.

In addition to the news picture, audio on the channel was given over to the local radio station, KATL. Elliot added:

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In this way, people could read the headlines or summaries of stories, then listen to the complete story on radio. It reinforced what they saw coming off the wire. Many people reported seeing part of a story, then waiting for news on the radio to fill in the rest.24

The greatest problem during testing was a legal matter concerning stories marked for a later release. Newspapers and broadcasters honor release dates and hold stories after coming off a wire machine until they are able to make release. But on "news channel" once the story had been printed and picked up by the television scanner, it was there for all to see, because the teletype machine printed the same material all Associated Press radio wire subscribers received. The problem was solved by constructing a special printer which would automatically turn itself off during the period when a story intended for later release was being transmitted.25

Each step that CATV takes in broadening its sphere of operations is watched with great interest by broadcasters. An historical survey of the development of television in any particular area would not be complete without discussing some of the present areas of conflict between the two interests. The following chapter will deal with these questions.

24Elliot, op. cit.
25Ibid.
THE PROBLEM

Literature relating to cable television, and published by persons in that business, indicates CATV operators think of themselves as providing a service to the public which the public is unable to give itself, by means of a large antenna which is able to receive television signals better than those installed in most homes. The master antenna is then connected to homes subscribing to its services by means of cables and amplifiers.

Cable television was instituted in communities where no, or very little, television was available on home antennas and receivers. Cable acted as an extension of the coverage area of a television station.¹

As previously indicated, network programs were not readily available to Montana television station operators. According to Alfred F. Dougherty, attorney for the Montana Cable Television Association,

CATV was the first to make network television available in Montana—at Kalispell—in 1953. Residents of Montana have been required to turn to community antenna systems and low powered translators to obtain television reception because no other means were available. This television is obtained at the expense of our citizens who either contribute to support the low power stations or to support their local community antenna by paying its monthly charges.²

This statement uncovers a problem which is unique to a few sparsely populated western states. Unlike populated areas, Montana has


²Statement of Alfred F. Dougherty on behalf of the Montana Cable Television Association before Subcommittee No. 3, of the Committee of the Judiciary, House of Representatives, June 24, 1965.
few television stations. Those that exist are located in the widely separated population areas of Missoula, Butte, Great Falls, Helena, Glendive and Billings. This presents a great problem for smaller communities on the fringe coverage areas of the television stations. They have only two means of obtaining television: through CATV or translators.

Cable television in these communities presents advantages for both the public and the television stations. Through cable, residents are able to enjoy television. In addition, the television stations are able to increase their coverage, audience size and, therefore, advertising rates without the expense of raising power or increasing the height of their transmitting towers. The position of the National Community Television Association is essentially the same.

Although community antennas do not originate broadcast programs or alter, change, or delete broadcast intelligence, such operations, nevertheless, are closely allied with television broadcasting and are a vital adjunct of such service, extending television broadcast reception to 'fringe' reception areas.  

To substantiate this point, the following is a list of Montana television stations with the cable companies, and number of subscribing homes for each, carrying each of the stations. Only those cable companies outside the grade B contour, or prime coverage area of each station have been used.  

<table>
<thead>
<tr>
<th>KULR</th>
<th>Billings</th>
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<td>Big Timber</td>
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<td></td>
<td>Livingston</td>
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Miles City .......................... 1,011
Basin, Wyo. .......................... 169
Cody, Wyo. .......................... 800
Greybull, Wyo. ....................... 443
Sheridan, Wyo. ....................... 2,474
Worland, Wyo. ......................... 677
Total Additional TV Homes .......... 7,864

KOOK- TV Billings
Glasgow ............................. 1,800
Livingston .......................... 1,950
Miles City .......................... 1,011
Basin, Wyo. .......................... 169
Cody, Wyo. .......................... 800
Greybull, Wyo. ....................... 443
Sheridan, Wyo. ....................... 2,474
Thermopolis, Wyo. ................... 390
Worland, Wyo. ......................... 677
Total Additional TV Homes .......... 9,714

KXLF- TV Butte
Bozeman ................................ 2,300
Dillon .................................. 422
Livingston ............................ 1,250
Total Additional TV Homes .......... 4,572

KXGN- TV Glendive
None at the present time.

KFBB- TV Great Falls
Cut Bank ............................. 1,030
Havre .................................. 2,200
Helena .................................. 2,354
Lewistown .............................. 1,865
Shelby .................................. 605
Total Additional TV Homes .......... 8,054

KRTV Great Falls
Cut Bank ............................. 1,030
Havre .................................. 2,200
Helena .................................. 2,354
Lewistown .............................. 1,865
Total Additional TV Homes .......... 7,449

KELL- TV Helena
Bozeman ............................... 2,300
Dillon .................................. 422
Livingston ............................. 1,250
Total Additional TV Homes .......... 4,762

KGVO- TV Missoula
Butte ................................... 2,250
Total Additional TV Homes .......... 2,250
It will be noted that the coverage areas of both television stations in Billings are increased greatly by cable companies in Northern Wyoming. Because of cable in both states, most Montana television broadcasters are able to claim a greater coverage area when reporting rate and audience data to advertising interests. KXGN-TV in Glendive is the only station not carried on a cable system. However, Miles City is making provisions for the station. Louis Moore, owner of KXGN-TV, reports he will claim the additional coverage in audience surveys.5

Although cable systems can be of advantage to a television station, most broadcasters are viewing the growth of CATV with concern. Some are mildly concerned. Others are alarmed and predict television broadcasting will be seriously injured, if not completely eliminated, if cable is allowed to expand further.

Although some remote cable systems help a television station extend its normal coverage area, systems closer to the station's base of operations present an altogether different situation. The FCC has found,

The broadcasters and those supporting their position ... urge that CATV systems have a substantial adverse impact on local stations, particularly UHF stations and stations in small markets, through loss or division of audience and resulting reduction in revenues.6 Moreover, in addition to the CATV system located in the community of assignment of the local station, there may be CATV systems in most or all of the communities of any size within the station's service area.

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5Conversation with Louis Moore, majority owner KXGN-TV, July 23, 1965.

6All television served communities in Montana are considered small markets by national standards.
Taken together, these multiple systems may reach a sizeable percentage of the total TV homes served by the local station, and "skim off the cream" of the population most likely to contain local advertisers as well as that which non-local advertisers are most interested in reaching.7

In Montana there are cable companies operating in the home towns of all Montana television stations with the exception of Billings and Glendive.

The problem of a cable company and a television station operating together in a community, according to the broadcasters, is that the cable causes fractionization of the station's audience by bringing in outside signals. When audience surveys are taken, it is generally found that the station's audience is split with some watching the outside stations. This, in turn, decreases the station's ability to sell advertising both on a local and national scale.

In Montana, audience splitting appears to be the most severe in Missoula and Helena.

Dale Moore, major stockholder of KGVO-TV in Missoula, reports that 41.86 per cent of all television set owners in Missoula County, his prime audience and advertising area, subscribe to a cable system. There are 12,900 television homes in Missoula County and 5,400 are on cable.

Although his station is carried by the cable systems in the county, surveys indicate only 30 per cent of the viewing audience watches KGVO-TV during prime television time. The national average for stations on a local cable system is 60 per cent, according to Moore.

Additionally, Moore believes cable systems in his fringe areas

7Federal Communications Commission, Docket No. 14895 and Docket No. 15233, First Report and Order.
hamper rather than increase his potential audience.

The following is a partial list of Montana counties which KGVO-TV reaches through the air or by cable, the number of television homes in each and the percentage of homes in those counties on cable.8

Flathead County
9,300 homes with television, 10.99 per cent on cable.

Lewis and Clark County
8,200 homes with television, 88.5 per cent on cable.

Deer Lodge County
4,900 homes with television, 19.5 per cent on cable.

Moore claims the picture quality of KGVO-TV on cable systems in Flathead and Deer Lodge Counties is inferior to others on the systems. The reason, he believes, is that the systems are quite eager to receive Spokane, Washington, stations and spend a great amount of money on expensive receiving equipment. Only a token effort is made to reproduce a quality picture from KGVO-TV. Because of this most viewers in the communities served by cable tend to watch the better quality pictures from the Spokane stations.

Another interesting aspect is that in Flathead County the largest system, Kalispell, does not carry KGVO-TV. Although the station reaches all homes through the air in Kalispell with an acceptable picture, viewers are hesitant to install a small switch which would be necessary to change from the cable system to a home antenna. For this reason, most cable homes in Kalispell are lost to KGVO-TV.

Moore reports his situation regarding CATV competition will change in late 1965 for three reasons. First, he has made arrangements to have

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8Television Factbook, op. cit.
the Kalispell system carry KGVO-TV. He is also going to enforce his non-duplication of programming rights with the local cable companies. Finally, he will receive direct network signals from Salt Lake City in late 1965 rather than taking signals from the Spokane stations and rebroadcasting them. Under present conditions, the Spokane signals are often of poor quality, especially in color reproduction. A direct network feed will provide a better quality picture on the cable systems and thereby increase his ability to compete with Spokane stations.9

In Helena the situation is slightly different because KBLL-TV is strictly a local station, covering only the city of Helena, and competing vigorously with an established cable system. The city of Helena has only 7,400 television homes and 2,790, or 37.7 per cent, of them are connected to the cable system.10 Therefore, KBLL-TV is in direct competition with KHQ-TV and KREM-TV both of Spokane, and KRTV in Great Falls, all larger stations with greater budgets and, therefore, able to produce better and more appealing programming on a local level.

It must be remembered that KBLL-TV is licensed primarily to Paul McAdam and Bob Magness, both heavily involved in Montana cable systems.11 Magness is president of the Helena cable company, Helena Television.12

However, Douglas Sutherland, manager of KBLL-TV, maintains the television station is a separate entity in the eyes of its owners and

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10 Television Factbook, op. cit.
12 Television Factbook, op. cit.
each competes with the other. That the two cannot be run officially by the same company was
well proven when the Helena cable company tried to operate the station using common management.

Although the Helena cable system undoubtedly splits KBLL-TV's audience, cable systems in the fringe coverage areas add 4,672 television homes that KBLL-TV would not have unless translators were installed.

Other stations in Montana are not as deeply involved in competition with cable interests. KXLF-TV in Butte owned a portion of the Butte cable company when it was conceived and built. Through its stock interest the station was able to enforce a non-duplication policy whereby the cable company could not carry a program from any other station before or at the same time KXLF-TV had it scheduled. In this way Butte television viewers have to watch KXLF-TV for all NBC programs and occasional programs from the other two networks. According to station management, the Butte viewers lose nothing because the variety of programs remains through other channels on the cable system. Nothing prevents them from watching programs from competing stations and networks. But when KXLF-TV is running a certain program, the station retains full rights to that program.

The two Great Falls stations are not seriously affected by cable

13Conversation with D. C. Sutherland, manager KBLL-TV, Helena, Montana, June 1, 1965.
14See "Television Comes to Montana" in this thesis.
15Conversation with Ed Peiss, manager KXLF-TV, Butte, Montana, April 6, 1965.
competition because each has a wide coverage area outside the city. Furthermore, the cable company has not made great strides within the city. Latest figures indicate CATV in Great Falls has 2,400 subscribers of a potential 10,000.\(^\text{16}\)

Dan Snyder of KRTV is not at all worried about cable competition in Great Falls.\(^\text{17}\) The manager of KFBB-TV maintains a similar attitude because CATV has not been of great consequence to his station.\(^\text{18}\)

Of the some 4 per cent of the two stations' potential audience which is connected to the cable system, it is likely that a great portion watch the local stations with some consistency. The two program the most popular programs from the three major networks and produce a wide variety of local programming designed to captivate Great Falls viewers.\(^\text{19}\)

The Billings stations have not experienced splitting of their audiences because there is no cable system in that city at this time. Additionally, the two Billings stations have profited greatly from surrounding cable interests.

Although most Montana television broadcasters have not been seriously injured by CATV, a deep and burning resentment remains. Broadcasters seem to have a deep fear of CATV and are jealous of its ability to produce an outstanding profit. According to one broadcaster,

\(^\text{16}\) *Television Factbook*, op. cit.
\(^\text{17}\) Conversation with Dan Snyder, majority owner KRTV, Great Falls, Montana, April 8, 1965.
\(^\text{18}\) Conversation with W. C. Blanchette, manager KFBB-TV, Great Falls, Montana, May 18, 1965.
\(^\text{19}\) See Great Falls chapter in this thesis.
Television and radio broadcasters have to comply with every facet of FCC rules and regulations on the premise that the air ... belongs to the people. CATV, on the other hand, since its inception in this country, and this is true in Montana, has operated as free as a bird in the air. No regulation and no renewal of application. Further, it's a matter of program right where we must pay for our programming that we use. CATV has never had to do this. It has been able to leech it and sell it. These are the points of contention between free operators and CATV operators. \(^{20}\)

The reasoning here is that broadcasters expend great amounts of time, energy and money producing local programs, gathering national and local advertising, and securing rights to network programs popular in a certain area. CATV is able to take the station's product, deliver it to its subscribing homes and make a profit but pay nothing for the use of the programs. Unlike television stations, CATV's raw material is free.

This argument, taken on a national scale, finally breaks down to a matter of copyright. Several television production companies argue that cable systems are violating basic copyright laws. Two significant lawsuits have been filed against major cable interests:

one ... by United Artists (represented by the firm of famous attorney Louis Nizer) against two West Virginia systems; the other by CBS against TelePrompTer Corporation, a major chain owner of CATV systems. They both charge that the systems are violating copyright laws by picking up and retransmitting programs without permission of the copyright owners. \(^ {21}\)

The two cable interests argue that they do not rebroadcast program material. They hark back to the original argument that they act merely as an extension of a subscriber's television receiver, and technically

\(^{20}\)Blanchette, op. cit.

serve the same function as a home antenna.\textsuperscript{22}

The Federal Communications Commission has become involved in this conflict because of the broadcasters' contention that CATV has grown beyond its original purpose of extending coverage and is now actually engaged in competition designed to supplant broadcasting stations. This has been accomplished through the movement of cable companies from television fringe areas into cities which already have television broadcasting facilities.

The Association of Maximum Service Telecasters, Inc. has been quite outspoken concerning its fears relating to the rapid growth of CATV.

The problem lies not in traditional CATV, but in new concepts which threaten to transform CATV into something entirely different. The new role of CATV is not to supplement nearby broadcasting services. Rather, CATV is now moving aggressively to replace local broadcasting. Instead of filling in service in areas where reception is difficult, CATV is mushrooming into communities small and large where reception of local stations already is excellent.\textsuperscript{23}

The problems that CATV in a metropolitan area can cause are primarily twofold. One, fractionization of audience, discussed earlier, does not appear to be a serious problem yet. However, the Association of Maximum Service Telecasters again has expressed fear for the future.

In single station markets which for the most part are relatively small markets, a CATV system may bring into the urban area as many as 10 program choices to compete with the television station for viewers. It is contended that only about 10\% of a station's listeners are involved; however, it does not take much imagination to visualize this 10\% growing

\textsuperscript{22}Ibid.

\textsuperscript{23}Jack Harris, "The CATV Question: Television at the Crossroads," Address to the Federal Communications Bar Association, Association of Maximum Service Telecasters, Inc., Washington, D. C.
much larger. If other communities in the station's service area are wired and if advertisers in those communities stop buying advertising on the local station the economic consequences to the local station are obvious. Ultimately, the ability of the station to adequately serve the public or even survive could become questionable.²⁴

The Federal Communications Commission, after realizing that a problem existed between the two interests, hired an economist, Dr. Martin Seiden, to study the economic effects of cable on broadcasters. He found an absence of valid information on the subject has prevented national advertisers from taking cable audiences into account when studying a broadcaster's audience and therefore have not adjusted rates which could cause a direct economic impact on television broadcasters. Approximately the same was found concerning local advertising.²⁵

Although direct economic impact is not evident, indirect impact does exist. Since most CATV systems operate in the area of one- and two-station markets, the small broadcaster who could least afford the loss of audience was probably the most seriously affected.²⁶

The present effects of CATV in cities with television are not nearly as pronounced as they will be in the near future. Seiden concluded that "the use of small stations will become redundant since the penetration of small-markets by CATV will reduce the value of the local broadcaster as a means of reaching the smalltown audience."²⁷

²⁴Frederick W. Ford, "Television's Divided or United--Some Problems in Television Growth," Address before the 13th Annual Convention of the National Community Television Association, Association of Maximum Service Telecasters, Inc., Washington, D. C.


²⁶Ibid., p. 4.

²⁷Ibid.
The second problem involves future television stations. CATV in a city that has allocations and possibilities for a second or third television station tends to discourage additional broadcasters from entering the market.

There are 28 unused commercial television channels in Montana at this time. Over half (17) are in the UHF band. 28

UHF channels are of great importance on a national scale because nearly all channel allocations in the VHF spectrum (channels 2 through 13) have been filled. As the need for more television stations grows, UHF channels will have to be used. The FCC and the U. S. Congress have recognized and met this problem.

Congress has only recently reaffirmed the goal of an effective national television system. Congress has also determined that the way to achieve the . . . goal is through effective use of UHF channels, since most large centers of population now have three full network stations and no unoccupied VHF frequencies. 29

To this end, Congress adopted an "all-channel" act which forces manufacturers to build receivers which will receive both the common VHF channels and the UHF channels. 30

Although channels are crowded on a national scale, Montana still has 11 unused VHF frequencies. They are, however, mostly in markets which already have a television station.

The fear among broadcasters, and other interested parties, is that the growth of CATV will impede the goals of the Communications Act


29Federal Communications Commission, Docket No. 15971.

30Ibid.
which established the Federal Communications Commission,

for the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service.\(^\text{31}\)

Cable television depends on a concentrated mass of homes in order to survive. Although CATV can provide its service to small communities, it cannot reach beyond the community and serve a great number of farm and small community residents because of high cable construction costs. The average national cost of coaxial cable is \$4,000 per mile. In Montana, where many homes are often miles apart, it is evident that the cost per home would preclude the remotest possibility of profit.\(^\text{32}\)

The following is a condensed table of Montana's urban and rural population figures based on the 1960 census.\(^\text{33}\)

<table>
<thead>
<tr>
<th>Population Category</th>
<th>Figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Montana Population</td>
<td>674,767</td>
</tr>
<tr>
<td>Urban Population</td>
<td>338,157</td>
</tr>
<tr>
<td>Rural Population (towns of 2,500 pop. or less)</td>
<td>336,310</td>
</tr>
<tr>
<td>% of total population</td>
<td>49.8%</td>
</tr>
<tr>
<td>Rural Farm Population</td>
<td>105,598</td>
</tr>
<tr>
<td>% of total population</td>
<td>15%</td>
</tr>
</tbody>
</table>

Montana has 32 CATV systems in operation at the present time. Ten of that number are in towns with a population of 2,500 or less. But these ten companies account for only 9\(^\text{4}\) of 34,719 total CATV subscribers, or 2.72 per cent.\(^\text{34}\) In contrast, 49.8 per cent of Montana's population

\(^{31}\) The Communications Act of 1934, Title 1, Sec. 1.

\(^{32}\) Siden, op. cit., p. 24.


\(^{34}\) Television Factbook, op. cit.
resides in these areas.

From this it is obvious that only residents of the major Montana metropolitan areas have access to cable television and, therefore, multiple television channels. The rest are served primarily by one or two Montana broadcasters either from a direct station pickup, or by translators.

This is one of the great problems facing broadcasters and their regulatory agency, the FCC. If CATV in small markets with television stations, such as those the size of Missoula, Helena, Great Falls, Butte and Billings, are able to gain an economic foothold to the extent that they force the local station off the air, a great percentage of Montana's population would be without television. The metropolitan areas would still have television through the cable. The rural areas would not and could not.

Studies, such as the previously mention Seiden report to the FCC, indicate CATV has not yet had a great enough impact on local stations to force them out of business. But the impact may have been great enough to lessen the quality of locally produced programs which rural residents watch from their area television station. Dr. Franklin M. Fisher of the Massachusetts Institute of Technology conducted a study for the National Association of Broadcasters which makes this point very clear.

Using a variety of measures, Dr. Fisher shows that if his basic projections are correct, the impact of CATV non-carriage, suplication or simple fractionalization of station audience through additional program choices upon the profits of a large number of stations can be serious and, in the case of stations already marginal, disastrous.35

In addition, CBS and NBC television filed comments regarding CATV competition.

This, basically, is the problem that faced the Federal Communications Commission.

The Commission, in light of research projects into the problem and its responsibilities as outlined in the Communications Act, decided it must take action.

The Commission . . . believes that on the basis of the Communications Act it must recognize the importance of making it possible . . . for a large number of communities to obtain television assignments of their own. In the Commission's view as many communities as possible should have the opportunity of enjoying the advantages that derive from having local outlets that will be responsive to local needs.36

The Communications Act also gave the Commission jurisdiction to regulate "all interstate communication by wire or radio."37 It was decided that cable companies were engaged in interstate communications because "they form a connecting link in the chain of communication between the point of origin (the transmitting station) and reception by the viewing public (the CATV subscriber)."38 It should be pointed out that the term interstate is not taken literally by the FCC.

The law is clear that the mere location of communications facilities wholly within one state does not establish that the communication service rendered over such facilities is an intrastate service, and that a communications service can be interstate or foreign in nature and subject to the Commission's jurisdiction even though all the facilities are located within the confines of one state.39

36 Federal Communications Commission, Docket No. 15971, p. 1, Appendix B.
37 The Communications Act of 1934, op. cit.
38 Federal Communications Commission, Docket No. 15971, op. cit.
39 Ibid., pp. 1-2.
From this the FCC decided it had jurisdiction of all CATV systems which reached out for signals of distant television stations with the use of microwave regardless of whether the station was out of state.\(^{10}\)

On April 23, 1965, the FCC issued a Report and Order to go into effect June 1, 1965. The Commission concluded that,

a CATV system's failure or refusal to carry the signal of a local station and duplication of a local station's programming are unfair and unreasonable means of competition. \(^{11}\) That action is needed to ameliorate the adverse effects of CATV competition upon the maintenance and healthy growth of television broadcast service.\(^{11}\)

The Commission ordered all microwave served CATV systems to carry the signals of all local television stations without material degradation in technical quality, and to refrain from duplicating the programs of local commercial stations, either simultaneously or within 15 days before or after local broadcast. The requirement of non-duplication is aimed at preserving the local station's exclusivity, within its Grade B coverage contour, as an outlet for the programs it has obtained the right to exhibit in the competitive program market. This requirement is restricted further, however, to the area in which the station now acts as the exclusive outlet for its programming. Where a station's programming is duplicated by the overlapping signals of one or more other stations, it is not entitled to demand that a CATV system treat it as an exclusive program outlet.\(^{12}\)

Although the Commission's wording and intention is clear, it should be noted that all regulations for CATV are designed to protect the local television station in its immediate market. Therefore, KGVO-TV in Missoula, for instance, can require the Missoula cable companies to refrain from duplicating its programs through signals from Spokane, Wash.,

\(^{10}\) Federal Communications Commission, Public Notice - 0 66831, April 23, 1965.

\(^{11}\) Ibid., p. 2.

\(^{12}\) Ibid., p. 1.
but cannot ask the same of CATV systems in Great Falls, or Butte.\(^{43}\) The protection of the station's home ground, or primary coverage area in so-called Grade B contours, is all the Commission believes important at this time.\(^{44}\) The rules are designed to overcome fractionization of audience by CATV bringing in distant television stations. The rules are also designed to promote the growth of other local television stations in a market which previously would have been covered by distant stations brought in by CATV.

CATV reaction to the new rules was varied, but quite audible. The Western Microwave company immediately issued a statement to the FCC in which it contended the rules will cause a drastic curtailment of cable television services in Montana and could possibly have a fatal effect on some systems.

In addition the rules will deprive the viewing public of much of the additional television entertainment and services offered by CATV systems. The choice of programming available to CATV subscribers through a multiplicity of signals will be sharply reduced, and the convenience of being able to see programs at different times and at earlier hours will be denied. In many instances a clearer and more reliable picture will be withheld.\(^{45}\)

Western Microwave stated it did not believe the public would

\(^{43}\)Although the new rules apply to all microwave served CATV systems, the local station must demand compliance from a local cable system before non-duplication rules become effective for that system. The Missoula Cable TV company is a microwave served system.

\(^{44}\)The antenna of a television station radiates its signal in an approximate circle depending on obstructions such as mountains. The further a receiver is from the transmitting tower, the less is the strength of the transmitted signal. Grade B contour refers to a circle within which the signal is of sufficient strength to be received and produce a relatively clear picture on a television receiver.

\(^{45}\)Richard H. Strodel, "Comments of Western Microwave," before the Federal Communications Commission, p. 3.
receive greater benefits in the way of improved local broadcasting. It is Western's contention that the rules should be kept to a minimum and applied on a case-by-case basis as problems are raised by the local stations.  

The National Community Television Association also issued a quick reply, stating that, "This action by the FCC is completely arbitrary and unnecessary."  

The Association also believes the new rules could prevent the construction of future CATV systems in some markets and would be an unconscionable deprivation of the right of the public to select additional television stations on their receivers in order to unduly protect existing television markets. Such action by the Commission is totally unwarranted.  

Many broadcasters and the FCC are looking to another form of broadcasting which might prove to be an alternate solution for their problems and could even be a replacement for CATV. Translators can bring television to areas in which cable or regular broadcasting stations are impractical.  

The Seiden report indicated the use of translators seems to be especially applicable to a sparsely populated area such as Montana.  

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46Tbid., p. 4.  


48Tbid., p. 32.  

49A translator is a device which picks up the signals of a distant television station, amplifies and rebroadcasts the signal on another frequency or channel into an area which otherwise would be without television signals. Translators can operate on either VHF or UHF bands.
The purpose and pattern of translator development has several parallels to that of CATV systems. Translators are employed not only as basic television service for otherwise unserved communities, but are also being used as a means of increasing the number of different signals available. And it is in those States which are least able to support three local broadcast stations, that account for the greater share of translators.

The five principal translator states: Utah (194), Montana (196), Colorado (225), Washington (155), and Oregon (154), account for . . . about 48 per cent of the national total.50

Research conducted by Dr. Seiden indicates translators in rural areas have the potential of covering a greater population with a multiplicity of signals that far exceeds CATV.

In Wyoming and Montana 13 translator-served communities . . . have more than 1,000 TV homes, 2 communities each have 5,000 TV homes, and 1 exceeds 8,000 TV homes. By comparison, the largest CATV system in the Nation has 15,000 subscribers and there are only 38 CATV systems with more than 5,000 subscribers.51

Seiden also found that "from the standpoint of cost, both capital and operating, translators are considerably less expensive than CATV systems."52

Two problems have impeded the growth of translators: finding a way to cover the cost of construction and maintenance, and licensing by the FCC.

One of the first men in Montana to become interested in the possibilities of translator service was Ed Craney while he was operating KXLY-TV in Spokane, Wash., and KXLF-TV in Butte. In the late 1950's he installed a translator in Anaconda to extend the coverage of his Butte

50Seiden, op. cit., p. 20.
51Ibid., pp. 20-21.
52Ibid., p. 22.
station. The FCC did not recognize the legality of translators at the
time and made him take it from service. But he was determined to make
translators an integral part of television broadcasting. He asked
former Senator Burton K. Wheeler, then an attorney in Washington, D. C.,
for help.

Senator Wheeler called me one Tuesday and said, "I have a
date for you with Chairman John Doerfer of the FCC this Friday." I
said, "Senator, I was back there not long ago. I can't go
back again." He said, "We're going to talk about those trans-
lators that you keep talking about all the time." I told him he
knew the matter as well as I did and to talk to Doerfer himself.
He told me I had to go back. I said, "Well, do you know the new
Governor over in Colorado? Suppose I call him and get him to
come with me; he's interested in this, too." Wheeler said that
was all right, so I called this fellow. I'd never met him before,
but he agreed to go.53

Craney and Stephen L. R. McNichols, the Governor of Colorado, went
to Washington to discuss translators with the FCC. According to Craney,
it was a difficult day.

Well, Doerfer had just expected me. When he saw the Governor
and some engineers I brought along, he said, "I'm going to get
some of my boys." Well, he got a bunch of his people in and we
got started. He had the head of his field engineers come in and
a number of others and these guys talked and talked and talked
all about all of the things that could go wrong with a translator.
They thought they could interfere with airplanes, and they could
do this and that. Finally Doerfer brought out a bunch of pictures
of a Navy translator installation that cost a hundred thousand
dollars. He said, "This is what you're going to have to do, and
you people up there in the sticks have nobody that can afford this
kind of money." I said, "Speaking of these people up in the sticks,
we've got some farmers that don't know the least damn thing about
these things, but they've put little pieces of equipment together
in the dark of the night because you won't license them. And they
work. They'll work for ten, twenty or forty miles. Now, are you
going to close them down and take television away from these
people?"54

53 Conversation with Ed Craney, past owner KXXL-TV, KXLJ-TV, Butte,
54 Ibid.
It was from arguments such as these that the FCC finally allowed one-watt translators to be licensed and operated in the early 1960's. However, financing posed a problem because broadcast stations could not own the translators. Two methods of financial support were devised.

One was a translator association such as Teakettle in the Glacier Park area. Residents in West Glacier, Martin City, Coram and Hungry Horse are asked to contribute toward the upkeep of the system. This method has a serious drawback in that it is not possible to collect from everyone who watches the translator signal. All funds are voluntary donations by residents.

Seiden discussed the second method, the establishment of tax districts.

In some states local taxes are used to construct and maintain translators. Colorado, Montana, Nebraska, Utah, Kansas, Nevada, Missouri and Wisconsin have permitted the use of taxes for this purpose. In most cases the annual tax ranges between $5 and $15 a receiver.55

The Seiden report, on which the FCC based much of its CATV regulation decisions, indicated that more attention should be given translators.

They require a substantially smaller investment than CATV and are compact, highly mobile, and can be sold in the secondary market. In general they provide the flexibility necessary in an industry in which structural policy must be kept free to adapt to technological and demographic change. Translators are ideally suited as a temporary communications medium, and their use should be required to broadcast licensees in fulfilling their obligations to the public by bringing their signal to all homes in their coverage area.56

55Seiden, op. cit., p. 22.
56Ibid.
There are 119 one-watt translators operating in Montana. The following is a list of Montana television stations, the number of translators rebroadcasting each, and the additional number of homes with television that translators provide.

<table>
<thead>
<tr>
<th>Station</th>
<th>No. of Translators</th>
<th>Additional Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>KULR-TV, Billings</td>
<td>18</td>
<td>7,693</td>
</tr>
<tr>
<td>KOOK-TV, Billings</td>
<td>28</td>
<td>12,396</td>
</tr>
<tr>
<td>KXLF-TV, Butte</td>
<td>14</td>
<td>11,233</td>
</tr>
<tr>
<td>KXGN-TV, Glendive</td>
<td>2</td>
<td>625</td>
</tr>
<tr>
<td>KFBB-TV, Great Falls</td>
<td>30</td>
<td>11,882</td>
</tr>
<tr>
<td>KRTV, Great Falls</td>
<td>16</td>
<td>5,958</td>
</tr>
<tr>
<td>KBLL-TV, Helena</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>KGVO-TV, Missoula</td>
<td>12</td>
<td>4,480</td>
</tr>
</tbody>
</table>

A comparison of this list and the one on pages 88-89 listing additional homes provided by cable systems indicates that the two are somewhat similar in the increased audience they give Montana television stations. It should be remembered, however, that translators, unlike cable systems, are more often constructed in areas which are completely without television. A great portion of cable systems are built in metropolitan areas which have access to television broadcast signals.

To substantiate this point, of the 31 CATV systems in Montana, 10, or 32.3 per cent, are within the Grade B contour of a television station. Of the 119 translators, 8, or 6.72 per cent are within a Grade B contour.

Ed Craney was vitally aware of the advantages of translators and was influential in the formation of the Tri-State Television Translator...
Association, an organization designed to support the establishment of translators in rural areas. The association also takes a vigorous stand against CATV.

Perhaps the most important activity of the association has been its active work with government officials to lessen the restrictions on translators, find better ways of financing and to increase translator power authorizations.

After considerable pressure by groups such as this and after several depth studies the FCC relaxed its restrictions.

On July 8, 1965, the Commission decided to "permit translators up to 100 watts power to operate on unoccupied VHF and UHF channels assigned to communities."57

The same notice also solved the financial problem. Translators can now be built and maintained by a commercial television station wishing to extend its signal coverage.58 The financial burden has been taken off translator associations and tax districts.

It is expected the new rulings will greatly increase the size of audiences served by translators through increased power. It is also likely that commercial broadcasters will soon begin to build translators to increase their audience and selling areas.

A Montana station was the first to take advantage of the new rules. Three months after the ruling, KGVO-TV in Missoula received authority from the FCC to construct and maintain a 100-watt translator in Kalispell.

58 Ibid.
On a national basis, 12 applications for high power translators in the VHF band were submitted to the FCC by October, 1965. There also were six applications for translators in the UHF band. 59

If this is the beginning of a trend, it is likely there will be considerable activity concerning 100-watt translators.

SUMMARY AND CONCLUSIONS

Most television broadcasters in Montana had a difficult start for two reasons. First, because of a relatively sparse population, television broadcasters often found it difficult to convince national advertisers Montana was fertile ground for commercials. National advertisers reasoned it was wiser to divide advertising budgets among television stations in areas of denser population where a single television station might have a greater audience than all Montana stations combined.

Further, after advertisers and networks decided Montana could be a lucrative area, broadcasters found it was nearly impossible to obtain network signals carrying the needed advertising because of rough terrain and high costs for installation of microwave or coaxial cable systems. In addition, the uncommon distances between television stations in Montana caused the costs to climb even higher.

For these reasons, network signals did not come into Montana for some time. Stations first used filmed network programs and later installed antennas of their own to pick up signals from distant stations which had network.

But private installations were often unsatisfactory because of construction and maintenance expenses and inferior reception. Nevertheless, this was the best system available to Montana broadcasters for some time.

Now, both the Skyline network and Western Microwave are bringing direct network signals into Montana from Salt Lake City. Stations on those systems can enjoy a greater choice of network programs and enjoy
improved technical quality.

Another problem facing Montana television pioneers was the serious lack of trained production personnel. Some stations relied on talent from their companion radio stations for help. Others imported trained people when possible.

In the late 1950's the Montana Board of Regents instituted a radio and television curriculum at the University of Montana in Missoula, and a film and television department at Montana State University in Bozeman.¹

Both schools place a great emphasis on a strong liberal arts background for their broadcasting students. At Montana State University the expressed goal is to produce well rounded, educated individuals who will enter one of the toughest, demanding and competitive fields today. We are not turning out highly skilled technicians. A student must be educated. He must have a broad background in all areas. There is nothing that should be excluded. If you look around the country you can find individuals who are trained in our field and nothing else. They don't get very far. This is something that we always keep in mind.²

Approximately the same philosophy exists at the University of Montana.

We're trying to train students to accept responsible positions as broadcasters. This means the student must know more than production techniques. He must have a solid background in the history of broadcasting and must understand the law as it relates to broadcasting. All of this is combined with a broad liberal arts background.

We do this because we believe the student should have more than just a notion of his professional environment.³

¹Telephone conversation with Frederick Gerber, Director of Film and Television, Montana State University, Bozeman, July 26, 1965.
²Ibid.
³Conversation with Philip J. Hess, Assistant Professor of Journalism, University of Montana, Missoula, July 30, 1965.
Through the efforts of the two universities, Montana broadcasters are able to draw upon trained personnel within easy reach.

The two universities have also had an active interest in educational television. However, relatively little progress has actually been accomplished outside their immediate area.

Several studies have been undertaken, including surveys of television facilities which could be used for educational programming at both universities. Additionally, an extensive report on the advantages of educational television in Montana was completed in 1962 by Dr. Erling Jorgensen, then director of radio and television at the Missoula university. In that report, he said,

Since one of educational television's strongest advantages is its ability to distribute over large areas and to many classrooms the resources otherwise restricted to small areas, Montana should bear in mind the resources at its disposal in planning for the use of educational television in its schools. The challenge is to organize the state's resources to the benefit of our schools.4

Although nothing beyond this report ever materialized for a statewide educational television system, the two universities have produced a number of instructional television programs through their closed circuit facilities.

The Bozeman institution has televised chemistry courses and published the results of their experiments.

The Missoula school has used its facilities to teach Spanish classes to local grade school children over closed circuit television.

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In addition, television has been used to aid instructors teaching audio visual methods, psychology and education.\textsuperscript{5}

Although educational television has not made substantial strides, the entertainment aspects of the medium have always intrigued the citizenry, so much, in fact, that there has been a burning desire to receive television, sometimes regardless of expense. In areas where broadcast station signals were weak or non-existent, people spent considerable sums of money to have access to television programs. Many cable companies started with initial installation fees in excess of $100 plus the monthly subscription charges. Archer Taylor of the Kalispell cable system reported a bank there financed the cable installation in conjunction with the purchase of television receivers.\textsuperscript{6}

The desire for television resulted in the rapid expansion of cable systems and the establishment of translators.

It was this rapid and uncontrolled expansion, however, which caused many of the problems discussed in the previous chapter. Broadcasters greatly enjoyed the advantages of cable television while it remained in rural areas and acted as an extension of the broadcasting stations' coverage patterns. But CATV had the potential of producing greater profits for enterprising businessmen in heavily populated areas.

For this reason, cable companies began to move into cities, many of which were the primary selling areas for television stations. Here is where the problems have their roots.

\textsuperscript{5}Hess, op. cit.

\textsuperscript{6}Conversation with Archer Taylor, partner Northwest Video, Inc., Helena, Montana, July 9, 1965.
As CATV systems made inroads into urban television viewers, the broadcasters began to feel the economic impact caused by the reduction of their audience. In time the situation became intolerable and the Federal Communications Commission was asked for help.

The help came in the form of regulations designed to lessen the competition caused by microwave served CATV systems. This placed the broadcasters and cable operators on a more realistic and fair competitive basis.

Because the new regulations deny many urban cable companies the right to bring in outside television programming which duplicates the local station's, it is likely that more and more energy will be expended devising extra services to keep old subscribers and entice new ones. Services such as the news channel, weather channels, music channels, radio programs, and more live local productions will probably become more common.

In addition to regulating CATV, the FCC opened the doors to the establishment of higher power translators owned by television broadcasters. If the broadcasters take advantage of the new rules, there is no doubt television services will greatly increase for both urban and rural populations.

Urban areas might well receive multiple signals from translators established in their areas by nearby television stations which normally could not be received.

In addition, rural areas which cannot financially support broadcast stations or cable companies will likely have additional television reception because of the less costly translators. It is
also possible the few areas which are without any television will be able to enjoy the medium through station owned translators.

Part of the research technique for this thesis was a questionnaire addressed to every cable company in Montana. It was designed to uncover some of the more significant aspects of CATV in Montana, including its history, scope of operations and reaction to FCC regulation. The questionnaires were mailed on a Friday. The following Monday each cable company in Montana received a letter from the Montana Cable Television Association, Inc., requesting the operators not answer any questions and to refer the author to the association attorney in Helena. Of the 23 forms mailed, only three were returned. Instead the author received a number of letters from cable companies requesting he do what the association asked.

Herein lies one of the observed differences between cable operators and broadcasters. The former appear to be secretive, suspicious and quite unwilling to discuss their operations. One individual involved in CATV in Helena indicated he would not discuss anything in a formal sense because he feared retribution from a particular Montana television pioneer, adding that he would deny anything he said that appeared in print.

In contrast, Montana television broadcasters were quite willing and in some cases eager, to talk about their fears, hopes and problems. They openly answered all questions.

In all fairness to cable operators, however, it should be noted

8 A copy of the questionnaire appears in the Appendix.
that the cable association's Helena attorney arranged a meeting with Archer Taylor, pioneer Montana cable operator, Glenn Tarbox, owner of the Missoula Rattlesnake cable system and manager of the H & B Communications cable system in Missoula, and the author. They gave honest and coherent answers to all questions. Had it not been for these two, the history of Montana cable companies would not have appeared in this thesis.

The future trends for television in Montana appear to be centered around increased color broadcasting, installation of translators and more problems for cable companies.

Because the networks are increasing their color programming output and because the sale of color television receivers has increased markedly over the past few years, the local stations are beginning to look toward origination of color material, primarily commercials, from the station itself. KULR-TV in Billings will begin local color broadcasting during the fall of 1966, and KOOK-TV will follow in about a year. Dale Moore of KGVO-TV in Missoula is investigating increased color broadcasting also.

Although the future is bright for many television viewers in that they are likely to have increased television coverage through translators, the same cannot be said of the future for CATV subscribers.

At this time the FCC is investigating the possibilities of extending its recent rulings to all cable systems rather than just those which

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are microwave served.\textsuperscript{10} The significance of this action will be noticed most in metropolitan areas such as New York where a cable company has access to television signals without the use of microwave to bring in distant stations.

In addition, the introduction of more translators could cause serious competition for cable companies. If, for example, the Butte television station and one or two from Spokane built translators designed to cover Missoula, there will be little need for people to subscribe to cable television. They would have the same programs, but without having to pay. This is why it is likely cable companies will increase the extra services previously discussed.

It is conceivable, however, that if enough translators are constructed in areas which have local television stations, the competition between translators and broadcasters may become as complex and bitter as with CATV and broadcasters. The day may come when broadcasters will complain bitterly about unregulated translators as they did about cable interests.

\textsuperscript{10}\textit{Federal Communications Commission, Public Notice - B 66815, April 23, 1965, p. 2.}
BIBLIOGRAPHY

A. BOOKS


Although this work is primarily devoted to a pictorial study of well known television programs and personalities, its textual material contains a number of significant facts, including dates, relative to the early history of the medium.


The author presents a wealth of material concerning the development of television in the United States. He goes beyond the presentation of figures and dates to piercingly discuss the social effects of broadcasting and the effects of television on radio.


Willis' treatment of the history of television in America is quite short, but noticeably contains many facts which Head has overlooked.

B. GOVERNMENT PUBLICATIONS

Federal Communications Commission. *Comments of Western Microwave, in the Matters of Dockets 114895 and 15233.*

The official reactions of the Western Microwave Company regarding FCC rules governing microwave served CATV systems. This publication gives a detailed and thoughtful account of what the economic effects on Montana CATV systems and Western Microwave are likely to be because of the new rules.

Docket 15971.

This is the original notice of inquiry and notice of proposed rule making concerning CATV systems. It is most useful in research regarding the CATV problem because it contains a detailed account of the FCC's reasoning and philosophy relating to its decisions on the matter.


This is the first official public notice that the FCC adopted and could enforce new rules pertaining to CATV.

In addition to its notice of new rules, the FCC published an expanded report concerning the details of the rules. It also called for comments concerning its decision.


This is the official announcement of new rules relating to translator ownership and power.


The conclusions reached by Dr. Seiden have been highly quoted by the FCC in justifying its CATV rule making decisions. Many of Dr. Seiden's findings have been used as direct evidence that regulation was necessary.

Television Inquiry. Hearings before the Committee on Interstate and Foreign Commerce, United States Senate, Eighty-fifth Congress Pursuant to S. Res. 22h and S. 376, Part 6, 1959.

These 1959 hearings contain statements by a number of Montana broadcasters and cable operators relating to competitive differences and open hostility between the two interests. Of special interest was a fairly complete history of television station KGEO in Kalispell.

The Communications Act of 1934.

This is a complete version of the act with amendments through 1961. It is a valuable reference when investigating the motives of the Federal Communications Commission on any issue. It was this act that established the FCC.

C. PERIODICALS


The Yearbook is a comprehensive compilation of radio and television stations in the United States and Canada with sections devoted to FCC actions, advertising agencies, CATV systems and related subjects.


This article gave a resume of the latest ruling on translators for television.

This article presents a highly condensed and popularized, but accurate account of the complexities involved in the CATV dispute.

The *Montana Almanac* 1962.

This is an excellent and quite detailed compilation of statistical information relating to Montana population and business production.


The Factbook is a primary source for material relating to all aspects of television broadcasting. It contains much of the same general information as the Broadcasting Yearbook, but in greatly expanded detail. It is an invaluable informational source.


This is an excellent source for current facts and statistics relating to a variety of subjects.

D. MISCELLANEOUS PUBLICATIONS

*From Coast to Coast*. Jerrold Electronics Corporation, 1962.

This is a promotional publication of the Jerrold Electronics Corporation and contains an excellent history of the Western Microwave Company.


Harris presents an interesting account of the broadcasters' position regarding CATV. He also outlined legislation that had been proposed to the FCC.


This is a detailed report concerning the potential for educational television in Montana. Copies are available from the State Superintendent of Public Instruction, Helena, Montana.

L'Heureux, Robert D. "CATV--A Television Reception Service in Great Public Demand Beset by Legal Assaults and Federal and State Attempts at Regulation." National Community Television Association, Inc. (n.d.).

Although this work appears to be slanted toward the viewpoint of the National Community Antenna Television Association which financially supported the study, it contains valuable information concerning the history of CATV in the United States and CATV's position concerning competition with broadcasters.
Legislative Highlight Telecasts. Helena, Montana (n.d.).

XXLJ-TV, Helena, published this mimeographed booklet which gives a daily account of telecasts pertaining to the 1959 Montana Legislature prior to the time the station went off the air. The booklet also contains a statement of the reasons the station ceased operations.


This statement is in defense of cable television regarding proposed copyright laws pertaining to CATV.


This statement is a primary source concerning CATV's position on charges of economic impact from broadcasters. It is quite detailed and most useful in research relating to this matter.

"Over the TV Horizon." 1959.

This small booklet was designed to explain the theory of CATV in layman's terms.


In this address, Commissioner Ford relates the FCC's early thinking regarding regulation of CATV. He recites many precedents for regulation and discusses their legality.

E. NEWSPAPERS

Billings Gazette. November 1 through November 20, 1953; October 1 through October 15, 1958.

These issues were surveyed for background material relating to the two Billings TV stations.


The Missoulian carried very few stories regarding the activities of KGVO-TV.
In addition, the October, 1958, issues were reviewed.

These issues were scanned for background information. The Independent Record was noticeably lacking in stories relating to the local television station.


F. UNPUBLISHED MATERIAL


This paper is primarily devoted to a discussion of the advertising potential of KXGN radio and television in Glendive. There are, however, a few comments relating to the history of the two stations.


Most of Richards' material was taken from the individuals who pioneered radio in Montana. Much of his information is without duplication in any other source.

G. CORRESPONDENCE WITH THE AUTHOR

Elliot, I. A., Miles City, Montana, June 21 and July 30, 1965.
Williams, O. V., Miles City, Montana, June 21, 1965.

II. PERSONAL INTERVIEWS

Barr, James, Missoula, Montana, August 11, 1965.
Blanchette, W. C. (Bud), Great Falls, Montana, May 18, August 11 (telephone), 1965.
Bradley, Don, Great Falls, Montana, April 8, August 11 (telephone), 1965.
Elliot, I. A., Miles City, Montana, July 29, 1965 (telephone).
Gerber, Frederick, Bozeman, Montana, July 26, 1965 (telephone).
Manning, Jim, Butte, Montana, April 6, 1965.
Meyer, Charles E., Missoula, Montana, April 1, 1965.
Neath, Ernest A., Helena, Montana, June 1, 1965.
Snyder, Dan, Great Falls, Montana, April 8, 1965.
Sutherland, D. C., Helena, Montana, June 1, 1965.
## APPENDIX I

### CHRONOLOGICAL LISTING OF MONTANA TELEVISION STATIONS

<table>
<thead>
<tr>
<th>Station</th>
<th>Date Service Began</th>
</tr>
</thead>
<tbody>
<tr>
<td>KXLF-TV</td>
<td>August 14, 1953</td>
</tr>
<tr>
<td>KOPR-TV</td>
<td>August 26, 1953</td>
</tr>
<tr>
<td>KOOK-TV</td>
<td>Ceased operations on September 20, 1954.</td>
</tr>
<tr>
<td>KFBB-TV</td>
<td>November 9, 1953</td>
</tr>
<tr>
<td>KGVO-TV</td>
<td>March 21, 1954</td>
</tr>
<tr>
<td>KGEZ-TV</td>
<td>July 1, 1954</td>
</tr>
<tr>
<td>KXGN-TV</td>
<td>July, 1957</td>
</tr>
<tr>
<td>KBLL-TV</td>
<td>Ceased operations in the summer of 1959.</td>
</tr>
<tr>
<td>KULR</td>
<td>November 1, 1957</td>
</tr>
<tr>
<td>KRTV</td>
<td>January 1, 1958</td>
</tr>
<tr>
<td></td>
<td>March 15, 1958</td>
</tr>
<tr>
<td></td>
<td>October 5, 1958</td>
</tr>
</tbody>
</table>
APPENDIX II

GEOGRAPHICAL LISTING OF MONTANA TELEVISION STATIONS,
INCLUDING NETWORK AFFILIATIONS, OWNERSHIP AND CIRCULATION*

Billings
KULR-TV
Channel 8, NBC affiliate.
Licensed to Crain-Snyder Television, Inc.
Owned by Paul Crane Estate, 27%; Dan Snyder, 27%; P. N. Forton, 15%; Warren Hancock, 7%; Kenneth Hancock, 7%; Thor Myhre, 7%; James Battin, 5%; Bjarne Johnson, 5%.
ARB Total Net Weekly Circulation 49,600 TV Homes.

KOOK-TV
Channel 2, CBS, NBC affiliate.
Licensed to The Montana Network
Owned by J. S. Sample, president, 99.3%; Harvey D. Backman, .15%.
ARB Total Net Weekly Circulation 60,200 TV Homes.

Butte
KOPR-TV
Channel 6
Licensed to Copper Broadcasting Co.
Owned by George Hatch, 67%.
Ceased operations on September 20, 1954.

KXLP-TV
Channel 4, NBC, CBS, ABC affiliate.
Licensed to Garryowen Butte TV, Inc.
Owned by J. S. Sample, 100%.
ARB Total Net Weekly Circulation 43,600 TV Homes.

Glendive
KXGN-TV
Channel 5, CBS affiliate.
Licensed to Glendive Broadcasting Corp.
Owned by Louis W. Moore, president, 99.8%; Elizabeth Kindsfather, vice-president, .1%; Mary Louise Moore, secretary-treasurer, .1%.
ARB Total Net Weekly Circulation 5,000 TV Homes.

*Taken from Television Factbook, 1965.
Great Falls
KFBB-TV
Channel 5, ABC, CBS affiliate.
Licensed to Harriscop Broadcasting Corp.
Owned by Harriscop Broadcasting Corp., 100%.
ARB Total Net Weekly Circulation 44,200 TV Homes.

KRTV
Channel 3, NBC affiliate.
Licensed to Snyder and Associates.
Owned by Dan Snyder, president, 51%; Crain Estate, 38%; Herman Feiden, 5%; Shan Welcome Morrison, 3%; Genevieve Threikeld, 1%; Edward L. Kolman, 1%; Bjarne Johnson, 1%.
ARB Total Net Weekly Circulation 44,700 TV Homes.

Helena
KELL-TV
Channel 12, CBS affiliate.
Licensed to Capital City TV, Inc.
Owned by Paul B. McAdam, president, 43.33%; Bob Magness, secretary, 43.33%; A. W. Scribner, treasurer, 13.33%.
ARB Total Net Weekly Circulation 7,500 TV Homes.

Kalispell
KGEZ-TV
Channel 2
Licensed to KGEB-AM, Inc.
Owned by Copper City Radio Co., 87.9%; Mary Adele Sullivan, 11%, and others. Copper City Radio is the licensee of KBOW, Butte (owned 89% by Frank Reardon).
Ceased operations in summer of 1959.

Missoula
KGVO-TV
Channel 13, NBC, CBS, ABC affiliate.
Licensed to KMSO-TV, Inc.
ARB Total Net Weekly Circulation 29,500 TV Homes.
APPENDIX III

GEOGRAPHICAL LISTING OF MONTANA CABLE COMPANIES,
INCLUDING STATIONS CARRIED, OWNERSHIP AND NUMBER OF SUBSCRIBERS*

Alberton

Alberton Cable TV. T. A. Farr, owner.
Carry KGVO-TV, Missoula; KXLY-TV, Spokane.
70 subscribers of 85 potential.

Anaconda

Western Television. Owned by Community Television, Inc., Bob Magness, president; George Hatch, executive vice-president.
Carry KCPX-TV, KSL-TV, KUTV, KUED, Salt Lake City, KGVO-TV, Missoula; KXLF-TV, Butte.
1,130 subscribers of 1,500 potential.

Big Timber

Community TV. Bob Magness, president; George Hatch, vice-president.
Carry KOOK-TV, KULR, Billings; KSL-TV, KUTV, KCPX-TV, Salt Lake City.
365 subscribers of 425 potential.

Bozeman

Community TV. Bob Magness, president; George Hatch, vice-president.
Carry KUED, KSL-TV, KUTV, KCPX-TV, Salt Lake City; KXLF-TV, Butte.
2,500 subscribers of 3,000 potential.

Butte

Butte Television Co. Bob Magness, George Hatch, Paul McAdam, partners.
Carry KCPX-TV, KSL-TV, KUTV, KUED, Salt Lake City; KGVO-TV, Missoula; KXLF-TV, Butte.
2,250 subscribers of 10,000 potential.

Columbia Falls

Part of Kalispell system.

Cul Bank

Highline Community Antenna Service, Inc. Owned by TelePrompTer.
Carry KUED, KUTV, KCPX-TV, KSL-TV, Salt Lake City; KGVO-TV, Missoula; KXLF-TV, Butte.
1,031 subscribers of 1,200 potential.

*Taken from Television Factbook, 1965. 

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Dillon

Dillon Cable TV, Inc. Owned by Community TV.
Carry KUED, KUTV, KCPX-TV, KSL-TV, Salt Lake City; KXLF-TV, Butte.
670 subscribers of 1,000 potential.

Glasgow

Glasgow TV Cable Co. Charlotte Brader, president and general manager.
Carry KOOK-TV, Billings; KUMV-TV, Williston, North Dakota; KCPX-TV,
KUTV, Salt Lake City; CJLH-TV, Lethbridge, Alberta.
1,750 subscribers of 2,000 potential.

Great Falls

Great Falls Cable TV Co. Owned by TelePrompTer.
Carry KFBB-TV, KRTV, Great Falls; CJLH-TV, Lethbridge, Alberta;
KHQ-TV, KXLY-TV, Spokane; KCPX-TV, KUED, Salt Lake City; KARR-FM,
Great Falls.
2,400 subscribers of 10,000 potential.

Hamilton

Hamilton TV Cable Co. Owned by H & B Communications.
Carry KHQ-TV, KREM-TV, KXLY-TV, Spokane; KXLF-TV, Butte; KGVO-TV,
Missoula.
365 subscribers of 800 potential.

Havre

Community TV Assn. of Havre. Charlotte H. Brader, president.
Carry KFBB-TV, KRTV, Great Falls; CJLH-TV, Lethbridge, Alberta;
KXLY-TV, Spokane, KOJM, Havre.
2,200 subscribers of 2,900 potential.

Helena

Helena Television. Bob Magness, president.
Carry KRTV, Great Falls; KBLL-TV, Helena, KHQ-TV, KREM-TV, Spokane.
2,980 subscribers of 5,000 potential.

Kalispell

Northwest Video, Inc. Archer Taylor, president.
Carry KXLY-TV, KREM-TV, KHQ-TV, Spokane; CJLH-TV, Lethbridge, Alberta.
3,400 subscribers of 4,500 potential.

Lewistown

Perfect TV, Inc. A. L. Glassman, president; George Hatch, v.p.
Carry KFBB-TV, KRTV, Great Falls; KUTV, KCPX-TV Salt Lake City;
KOOK-TV, Billings.
1,876 subscribers of 2,000 potential.
Libby
Troy Video, Inc. Albert O. Cain, president.
3 channels
140 subscribers.

Livingston
Livingston Community Antenna Assn. A. L. Glassman, president; George Hatch, vice-president.
Carry KOOK-TV, KULR, Billings; KCPX-TV, KSL-TV, KUTV, KUED, Salt Lake City.
1,850 subscribers of 2,100 potential.

Miles City
Micro-TV, Inc. I. A. Elliot, president.
Carry KCPX-TV, KUTV, Salt Lake City; KULR, KOOK-TV, Billings; KATL, Miles City.
1,020 subscribers of 2,900 potential.

Milltown
Community Antenna Systems.

Missoula
Helms & Tarbox Service Co. Earl Helms, president; Glenn Tarbox, vice-president.
Carry KHQ-TV, KREM-TV, KXLY-TV, Spokane; KGVO-TV, Missoula; KXLF-TV, Butte; KREM-FM, Spokane.
450 subscribers of 800 potential.

Marshall's Cable.
Carry KXLF-TV, Butte; KGVO-TV, Missoula; KXLY-TV, Spokane.
150 subscribers.

Missoula TV Cable Co. Owned by H & B Communications Co.
Carry KGVO-TV, Missoula; KXLF-TV, Butte; KREM-TV, KXLY-TV, KHQ-TV, Spokane; KREM-FM, Spokane.
6,000 subscribers of 8,000 potential.

Nye
American Chrome Co.
Carry KOOK-TV, KULR, Billings.
4 subscribers of 40 potential.

Polson
Electronic Wire, Inc.
Carry KHQ-TV, KXLY-TV, KREM-TV, Spokane, CJLH-TV, Lethbridge, Alberta.
Shelby

Highline Community Antenna Service. Owned by TelePrompter Corp. Carry KFBB-TV, KRTV, Great Falls; KXLY-TV, KHQ-TV, Spokane; CJLH-TV, Lethbridge, Alberta.
578 subscribers of 800 potential.

Sidney

Owned by Clair Kressbach.

Superior

Community Antenna Systems.

140 subscribers of 250 potential.

Troy

Troy Video, Inc. Glenn Maddux and Albert G. Cain, owners. Carry 5 television channels.
100 subscribers.

Whitehall

Western Microwave, owners and operators.

Whitefish

Big Mountain TV Cable Co. Owned by H & B Communications Corp. Carry KHQ-TV, KXLY-TV, KREM-TV, Spokane; CJLH-TV, Lethbridge, Alberta.
1,100 subscribers of 1,200 potential.

Winifred

Winifred Community Antenna System.
# APPENDIX IV

GEOGRAPHICAL LISTING OF MONTANA TRANSLATOR INSTALLATIONS, INCLUDING STATIONS TRANSMITTED, CHANNEL ON WHICH TRANSLATED AND NUMBER OF HOMES SERVED

<table>
<thead>
<tr>
<th>Town</th>
<th>Stations Transmitted</th>
<th>Channel Used</th>
<th>Homes Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troy</td>
<td>KREM-TV, Spokane</td>
<td>8</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>KXLY-TV, Spokane</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KHQ-TV, Spokane</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Thompson Falls</td>
<td>KREM-TV, Spokane</td>
<td>7</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td>KXLY-TV, Spokane</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KHQ-TV, Spokane</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>St. Regis</td>
<td>KXLY-TV, Spokane</td>
<td>8</td>
<td>175</td>
</tr>
<tr>
<td>Superior</td>
<td>KXLY-TV, Spokane</td>
<td>11</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>KGVO-TV, Missoula</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Plains-Paradise</td>
<td>KXLY-TV, Spokane</td>
<td>7</td>
<td>500</td>
</tr>
<tr>
<td>(tax district)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hot Springs</td>
<td>KGVO-TV, Missoula</td>
<td>5</td>
<td>166</td>
</tr>
<tr>
<td>(tax district)</td>
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<td>Warland</td>
<td>KXLY-TV, Spokane</td>
<td>7</td>
<td>50</td>
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<tr>
<td>Fortune</td>
<td>KREM-TV, Spokane</td>
<td>9</td>
<td>100</td>
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<td></td>
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<td>11</td>
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<td>Rexford-Gateway</td>
<td>KGVO-TV, Missoula</td>
<td>2</td>
<td>50</td>
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<tr>
<td>Somers</td>
<td>KGVO-TV, Missoula</td>
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<td>Billings</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Decker</td>
<td>KULR, Billings</td>
<td>Billings</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Birney</td>
<td>KOOK-TV, Billings</td>
<td>Billings</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Ashland</td>
<td>KOOK-TV, Billings</td>
<td>Billings</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Otter</td>
<td>KULR, Billings</td>
<td>Billings</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Boyes-Hammond</td>
<td>KDSJ-TV, Lead, S.D.</td>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Alzada</td>
<td>KOTA-TV, Rapid City</td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Box Elder area</td>
<td>KOTA-TV, Rapid City</td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Ekalaka</td>
<td>KDIX-TV, Dickinson</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Ekalaka-Belltower</td>
<td>KDIX-TV, Dickinson</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Trego-Fortine-Stryker-Eureka</td>
<td>KXLY-TV, Spokane</td>
<td></td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Libby</td>
<td>KREM-TV, Spokane</td>
<td>Spokane</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KXLY-TV, Spokane</td>
<td>Spokane</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KHQ-TV, Spokane</td>
<td>Spokane</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Columbia Falls</td>
<td>KXLY-TV, Spokane</td>
<td>Spokane</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Bigfork-Kalispell</td>
<td>KREM-TV, Spokane</td>
<td>Spokane</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KRTV, Great Falls</td>
<td>Great Falls</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KXLY-TV, Spokane</td>
<td>Spokane</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Shelby</td>
<td>KFBB-TV, Great Falls</td>
<td>Great Falls</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CJLH-TV, Lethbridge</td>
<td></td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Joplin-Chester-Inverness-Rudyard (tax district)</td>
<td>KRTV, Great Falls</td>
<td>Great Falls</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Location</th>
<th>Station</th>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Havre (rural)</td>
<td>KFBB-TV, Great Falls</td>
<td>82</td>
<td>220</td>
</tr>
<tr>
<td>(city)</td>
<td>KFBB-TV, Great Falls</td>
<td>73</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>KRTV, Great Falls</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Phillips County (tax district)</td>
<td>KOOK-TV, Billings</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Nashua (Valley Tax District)</td>
<td>KOOK-TV, Billings</td>
<td>79</td>
<td>1,700</td>
</tr>
<tr>
<td></td>
<td>KUMV-TV, Williston</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Lewistown</td>
<td>KFBB-TV, Great Falls</td>
<td>70</td>
<td>1,000</td>
</tr>
<tr>
<td></td>
<td>KULR, Billings</td>
<td>74</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX V

COMPARATIVE COVERAGE FIGURES FOR MONTANA TELEVISION FACILITIES*

<table>
<thead>
<tr>
<th>Facility</th>
<th>Number</th>
<th>Television Homes Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television Stations</td>
<td>8</td>
<td>284,300</td>
</tr>
<tr>
<td>CATV Systems</td>
<td>31</td>
<td>34,419</td>
</tr>
<tr>
<td>Translators</td>
<td>119</td>
<td>63,570</td>
</tr>
</tbody>
</table>

*Taken from Television Factbook, 1965, and Tri-State TV Translator Association figures. It should be noted that duplication of homes covered exists among the television services.

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APPENDIX VI

COVERAGE MAPS OF MONTANA TELEVISION FACILITIES
KGVO-TV  Ch. 13  Missoula
KXLF-TV  Ch. 4  Butte
KBLL-TV  Ch. 12  Helena

KFBB-TV  Ch. 5  Great Falls
KOOK-TV  Ch. 2  Billings

KRTV  Ch. 3  Great Falls
KULR-TV  Ch. 8  Billings

KXGN-TV  Ch. 5  Glendive
APPENDIX VII

UNUSED FCC COMMERCIAL TELEVISION STATION FREQUENCY ALLOCATIONS FOR MONTANA

<table>
<thead>
<tr>
<th>City</th>
<th>Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaconda</td>
<td>Channel 2</td>
</tr>
<tr>
<td>Bozeman</td>
<td>Channel 22</td>
</tr>
<tr>
<td>Butte</td>
<td>Channels 6 and 15</td>
</tr>
<tr>
<td>Cut Bank</td>
<td>Channel 20</td>
</tr>
<tr>
<td>Deer Lodge</td>
<td>Channel 25</td>
</tr>
<tr>
<td>Dillon</td>
<td>Channel 20</td>
</tr>
<tr>
<td>Glasgow</td>
<td>Channel 16</td>
</tr>
<tr>
<td>Glendive</td>
<td>Channel 18</td>
</tr>
<tr>
<td>Hamilton</td>
<td>Channel 17</td>
</tr>
<tr>
<td>Hardin</td>
<td>Channel 4</td>
</tr>
<tr>
<td>Havre</td>
<td>Channels 9 and 11</td>
</tr>
<tr>
<td>Helena</td>
<td>Channel 10</td>
</tr>
<tr>
<td>Kalispell</td>
<td>Channel 9</td>
</tr>
<tr>
<td>Laurel</td>
<td>Channel 14</td>
</tr>
<tr>
<td>Livingston</td>
<td>Channel 16</td>
</tr>
<tr>
<td>Miles City</td>
<td>Channels 3 and 10</td>
</tr>
<tr>
<td>Missoula</td>
<td>Channels 8 and 21</td>
</tr>
<tr>
<td>Polson</td>
<td>Channel 18</td>
</tr>
<tr>
<td>Red Lodge</td>
<td>Channel 18</td>
</tr>
<tr>
<td>Shelby</td>
<td>Channel 14</td>
</tr>
<tr>
<td>Sidney</td>
<td>Channel 14</td>
</tr>
<tr>
<td>Whitefish</td>
<td>Channel 16</td>
</tr>
<tr>
<td>Wolf Point</td>
<td>Channel 20</td>
</tr>
</tbody>
</table>
Accompanying Letter

Dear Sir:

As a final requirement for a Master's degree in Journalism at Montana State University in Missoula, I am preparing a thesis concerning the Development and Present state of television in Montana.

A great portion of the thesis will deal with the growth and development of CATV in the state and your thoughts concerning recent FCC action.

Although the attached questionnaire might look rather imposing at first glance, I think you will find that you know most of the answers and the rest should take a minimum of research. Blank space has been left for questions which require more than a one or two word answer. If you find you need more space please feel free to write on the back of a page, or include another page yourself.

In order for my thesis to be as accurate and meaningful as possible, it is important that you be as accurate as you can.

I realize that you are very busy and that I am creating a great imposition. I can only hope you will agree that a history of television in this state is an important and needed study.

It is expected that a summary of this project will be printed in the Journalism Review, a yearly publication of the MSU School of Journalism, and a completed questionnaire will put you on the mailing list.

I hope you will be able to put yourself to this task without delay. Thank you for your cooperation.

Sincerely yours,

/s/ RAY DILLEY

Ray Dilley
1. Original owners (include business address).

__________________________________________________________________

__________________________________________________________________

2. Dates and principals of ownership changes (include business addresses).
   a. (date) ___________ (name) ______________________________

      (address) ____________________________________________

   b. (date) ___________ (name) ______________________________

      (address) ____________________________________________

3. Date service began. __________________________________________

4. Original stations carried (use call letters).
   a. ______________ e. ______________ i. ______________
   b. ______________ f. ______________ j. ______________
   c. ______________ g. ______________ k. ______________
   d. ______________ h. ______________ l. ______________

5. Number of installations after first year ________________

6. Present number of installations ____________________________

7. Potential number of installations __________________________
8. Stations now carried (use call letters and dates of addition to system if possible).

a. ___________________ (date) ___________________

b. ___________________ (date) ___________________

c. ___________________ (date) ___________________

d. ___________________ (date) ___________________

e. ___________________ (date) ___________________

f. ___________________ (date) ___________________

g. ___________________ (date) ___________________

h. ___________________ (date) ___________________

i. ___________________ (date) ___________________

j. ___________________ (date) ___________________

k. ___________________ (date) ___________________

l. ___________________ (date) ___________________

9. In talking with free-air television broadcasters in Montana, I have found that their relations with CATV companies have not always been cordial. How have you found your relations to be with free-air broadcasters in your area. (The next page has been left blank for your answer).

10. The Federal Communications Commission adopted a joint Notice of Inquiry and Notice of Proposed Rule Making on April 22, 1965, which stated that the Commission concluded that it has jurisdiction over all CATV systems.

What do you think of this decision?

(Full page left for answer).


Have you been carrying the local station(s)? What do you think of this portion of the new rules? (Full page left for answer).
12. Another part of the new rules would require a "microwave-served CATV system . . . to refrain from duplicating the programs of local commercial stations, either simultaneously or within 15 days before or after local broadcast." (Federal Communications Commission, Public Notice - G, 66831, April 23, 1965).

How will this effect your operations? What do you think of this portion of the new rules?

(Full page left for answer).

13. The Commission has indicated that it is instituting the new rules "to ameliorate the adverse effects of CATV competition upon the maintenance and healthy growth of television broadcast service."

Do you believe the Commission has reached the right conclusions?

Do you believe CATV does have "adverse effects" on television broadcast service?

(Full page left for answer).

Name of Person completing questionnaire______________________________
Official title _______________________________________________________
Complete name of CATV company _____________________________________
Address ____________________________________________________________

Again, as prompt a reply as possible will be greatly appreciated. Thank you for your generous cooperation.

Sincerely yours,

/s/ RAY DILLEY
Ray Dilley