AUTOMATION: AGENT OF RADIO CHANGE

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By

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Automation: Agent of Radio Change

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III. Interviews with station personnel about efficiency and economy

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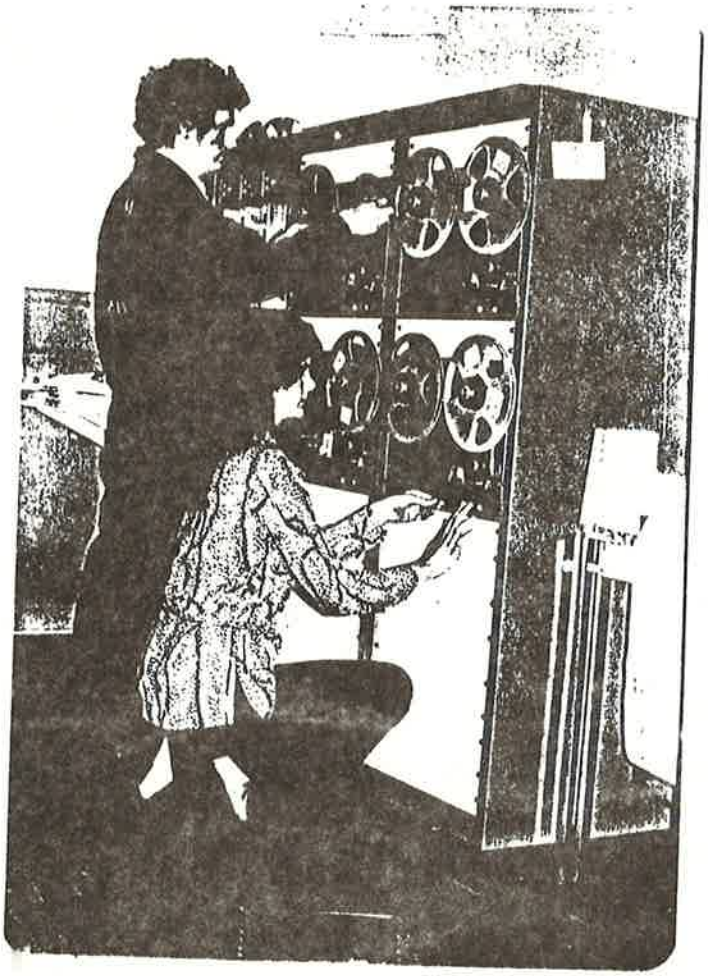
Thesis: Although radio station managers have recognized as a major problem that automation limits spontaneity and ready response to community needs, they have capitalized on its increased efficiency and consistent sound while experimenting with the system to overcome its built-in disadvantages. Even though an automated system can be adapted for response to immediate community needs, many programmers have not obligated themselves to adapt the system toward serving the public interest.

Although the history of radio automation is short compared to the history of broadcasting, dating back only to the middle 1960's, since its introduction automation has drastically changed radio operations. While raising some problems, it offers new opportunities, particularly that of making available a new quality of stereo sound.

Paul Schaefer is credited with installing the first automated radio station at KDB in Santa Barbara, California, 20 years ago. By 1979 2,100 broadcast stations are automated, half with a Cetec or Schaefer system. Most FM (Frequency Modulation) stations are now automated. A 1978 Model 903 Cetec Schaefer Automation System is pictured on Page 2.

Automation without stereo is available to AM (Amplitude Modulation) stations at the present time, and they will be able to offer stereo sound when the Federal Communication Commission endorses such equipment. Stereo broadcasting at the present time is used only by FM stations. Stereo combined with automation has not

only given station owners and managers unsurpassed professionalism in day-to-day operations, but audience ratings in markets across the country have also skyrocketed with the use of automation.



Candy Stone and Tim Lewis, both AM announcers at WTSB in Lumberton, set up music decks for use on the Cetec Schaefer 903 - Beautiful 96.

Although radio station managers have recognized as a major problem that automation limits spontaneity and ready response to community needs, they have capitalized on its increased efficiency and consistent sound while experimenting with ways to use the system to overcome its built-in disadvantages. Even though an automated system can be adapted for response to immediate community needs, many programmers have not obligated themselves to adapt the system toward serving the public interest.

The use of automation imposed on the radio industry a demise in spontaneity. Some of the greatest comedy and variety acts as well as political and sports reporting produced in America were popularized on AM radio. Early entertainers like Amos and Andy, Burns and Allen, Fibber McGee and Molly and Jack Benny had become better known on radio than they had in the theatre, films or vaudeville. Throughout the history of AM radio, entertainers have been created and popularized. Their creativity and spontaneity played a vital role in the early popularization of radio and have continued as a factor through the more recent development of local radio personalities and commentators, some of whom have become nationally known. Wolf Man Jack, Dick Clark, Paul Harvey, Howard K. Smith and Dr. Joyce Brothers all came to national attention through radio.

In contrast, automated broadcasting has not produced true entertainers like AM radio. Presently, 70 percent of all FM stations are automated. Because automated FM stations are subsidized with AM personnel, listeners hear AM personalities on commercials, weather, some local public service announcements and possibly on some other program events. These program segments are pre-recorded for automated broadcasting. Listeners to automated broadcasting will more often hear only a literally unknown voice announcing time checks and musical selections made available through syndicated programming services.

AM radio, a live communication medium, had a unifying and energizing impact on society, affecting attitudes, behavior and motivation. AM radio brought the same information and entertainment into homes across the country, providing a unifying core of information and entertainment. AM radio became a personal medium to which listeners had an immediate response. For instance, the response to the 1938 Orson Welles production of "Invasion from Mars" on the Mercury Theatre program demonstrated that radio not only affected the minds and emotions of people, but also their actions, causing in that case near panic in many towns and cities across the country.

Automation cannot make the same claims. Compared to traditional broadcasting, automation is a computerized robot capable of performing many mechanical operations flawlessly, but always, of course, dependent upon what it is told to do by its programmer. Although automation cannot survive without the human touch, it can survive without spontaneity. Inherently, this says something about the automated radio audience in that they are willing to settle for a medium that is not spontaneous and not personalized.

The AM radio operator, unlike an automated system, can look out the window and report that the sun is shining or that it is raining-- spontaneous comment on current weather conditions. An automated station, unlike an AM station, cannot answer telephone calls, cannot take listeners' requests for certain songs and cannot talk to a listener over the telephone.

Although automated broadcasing like live AM broadcasing is dependent on the operator to keep listeners informed and responsive to community needs, without a concerned and responsive operator on automation, public needs may be unmet. For instance, a tornado warning might come across the news wire, and an AM announcer could easily and readily announce this warning, but for the automated station the information would have to be put on cart (taped on audio cartridges) and then programmed

into the machine. If an announcer was rushed with AM operations he or she might neglect making the necessary changes for automated stations. For emergency situations, stations operating on automation require the operator's time and effort to interrupt automated programming, to insure that the listener receives emergency information. Because FM automated stations are usually subsidized with AM personnel, many times only one person is in charge of both stations and in extreme emergencies, such as a tornado, it is difficult for the operator to keep both listening audiences informed.

The Radio Act of 1927 delegated to the FCC the power of issuing licenses based on "public convenience and necessity" as the basis of choice among competing applications of broadcasters. (Section 303 of the Radio Act of 1927.) The Act states, "The commission, if public convenience, interest or necessity will be served thereby, subjected to the limitations of this Act, shall grant to any applicant therefore a station license provided for by this Act."

AM radio stations have always played an important role in serving the public interest providing a wide assortment of news, entertainment and information for the public. A fundamental part of early radio programming included news casts, weather reports, and farm news. These are still fundamental elements of AM radio, but in most instances other types of program elements have been

included like county extension reports, news features, special entertainment programs and often a community calendar of community events. In most cases, AM programming has provided information addressing community needs, pleasures and the like, and has also tried to stimulate listener involvement within the community through its spontaneity and immediacy.

"Even though there is no exact standard of time set by the FCC that says what amount of time a station must broadcast news, public affairs, public service announcements, or any of the other types of non-entertainment programs, FCC commissioners would like at least a one percent minimum of broadcast time to be designated to public affairs," according to Ron Pait, station manager of WTSB in Lumberton, North Carolina. Stations meet community needs through public affairs presentations, such as "Issues and Answers," "Voices in the Headlines," editorials, and announcements and reporting of Jaycee projects and other organizational projects that meet local public needs or focus on a local problem.

When an application for renewal of a broadcast license is made every three years, station owners and managers set the percentage of broadcast time they will devote to public affairs, and they are required by the FCC to meet the percentage they set. A station may exceed the percentage set, but if it doesn't meet

the set percentage, the station will be fined or its license can be revoked. For example, if a station operates 100 hours a week, one hour of that week should be designated to public affairs. When an entity applies to the FCC for a broadcast license or a renewal, it must promise to the FCC that it will broadcast in the public interest. For example, if an applicant proposes to broadcast 100 public service announcements per week, of no special duration, then that becomes the standard as far as the commission is concerned, because when the license comes up for renewal, the commission expects the licensee to have performed as proposed.

Whereas AM programming on the whole provides more programming to serve community interests, automated broadcasting in practice includes far less community interest programming such as localized PSA's, community calendars, local and national news, sports, and other features which are long-time programming elements of AM broadcasting. Each broadcast medium, for that matter, can choose to bury public affairs programming during their non-drive broadcast time such as late Saturday night or early Sunday morning.

Revolutionary changes are taking place in both broadcast media. AM broadcasting continues to lean toward an informational medium making use of spontaneity and immediacy, characteristics that have been essentially taken away with automation.

But automated stations have another appeal, stereo broadcasting, which is becoming the public's new sound medium. Because of the appeal of excellent stereo sound, programmers place more emphasis on music, little emphasis on talk. Radio station owners have capitalized on this vastly improved quality of sound while also taking advantage of its increased efficiency.

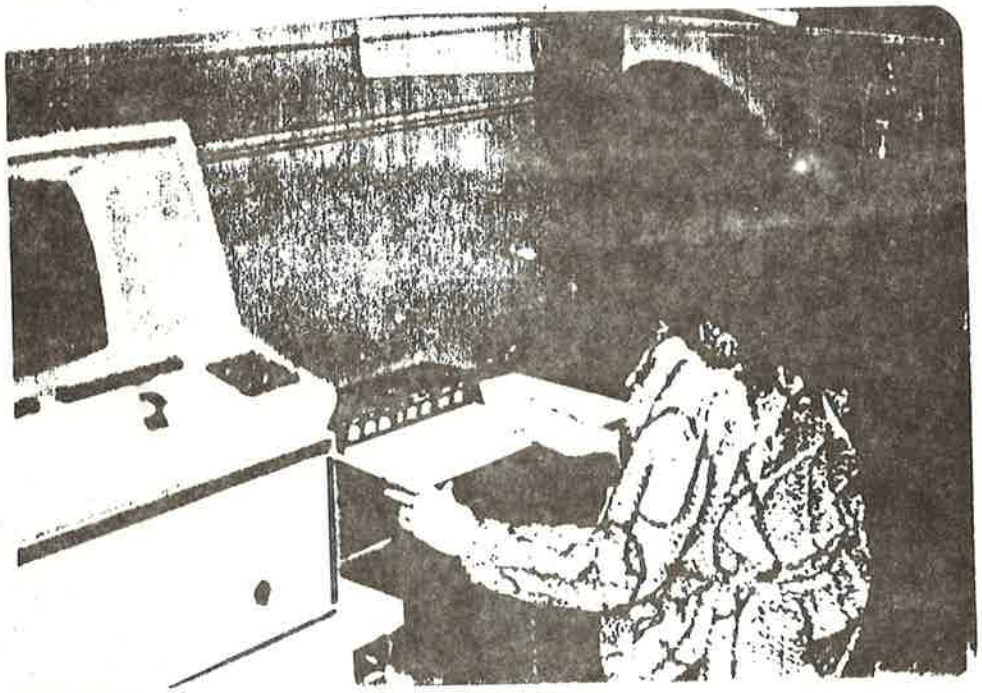
Automated broadcasting offers many economic advantages for radio stations. First of all, automation offers built-in operating techniques based on computer technology that have increased the efficiency of radio broadcasting. The danger of FCC citations involving technical and mechanical malfunctions will decrease with unmanned automated operation of transmitters. The system will take human error out of mechanical operations such as adjusting the transmitter and taking meter readings. If the voltage coming into the station is low or high the system will reduce or raise power as required. If the station is over-modulating (output too high) the automation system turns off the transmitter and sounds an alarm to insure that no FCC violations have occurred. It will also read meters accurately and print out the measurements giving station owners a permanent record which will be saved for a minimum of two years. This capability makes the broadcast station

more efficient and economical, leaving the personnel free for other duties and at the same time saving red tape in answering FCC violations.

Automation utilizes highly sophisticated, yet simple programming tools and management mechanisms to give the radio station unsurpassed professionalism and record-keeping of day-to-day operations. Print-out logs give a detailed account of what took place and the time it took place, therefore eliminating human error in this area. (See illustrations on Page 11) Print-out logs include commercials and other events such as network news, local news (if applicable to the station), weather announcements, public service announcements and even the time music decks played. "The use of automation equipment," said Joe Van Riper, production director of WBT in Charlotte, "keeps a precise record of what happens when. Whatever the automated station does in a broadcast day appears on the programming log the exact time it is played."

In comparison, AM logs are filled in by the operator who is on the air within each broadcast hour. Understandably, mistakes are made, items are omitted, times for weather, news (other than network) and ending times of programs are sometimes inaccurate. These errors lead to fines by the FCC.

Candy Stone checks the print-out log for 96-FM of commercials, music and events.



Candy Stone programming an event into the automation system.

Besides these efficiency factors, any member of the radio station staff can learn to program this system in a short period of time. The programmer works with two files, the time file and the format file. Incorporated into the time file are events timed to the day, hour and second or programmed to follow a musical event. For instance, a commercial can be programmed to play on Friday at 10:14:30, that is, 10:14 and 30 seconds as the time file works off a real time clock, and every second the memory is scanned to see what event is forthcoming. Commercials, station ID's, all news casts, sign on and sign off times are all real time events and thus work out of the time file section. The time file has to be programmed for each event according to real time, whereas the format file doesn't. Once the format rotation has been scheduled it continues to rotate forever and need never be reprogrammed unless the memory is erased by human error. The format file consists of musical selections designated by binary numbers.

Another advantage that comes with automation is the availability of a programming service. If the station uses a programming service based on computerized science instead of a programming director, the system will demonstrate a flawless consistency in playing music throughout day-to-day broadcasting. A variety of formats are readily available from which the music director can

select the type he feels is best for his particular market. The program service is based on a computerized science allowing flawless execution of music rotation within each hour and, furthermore, an overall balanced and consistent flow of music. Because of the competitiveness of the music production industry, numerous formats are available stimulated by the demands of radio stations for "something different." This wide availability of formats allows radio stations to compete in highly diversified markets. Presently, there are 60 or more companies involved in syndicated radio programming with many working 24 hours daily to supply the needs of broadcasting. For example, Drake-Chenault of Los Angeles, California, offers contemporary, top 40, progressive rock, album oriented rock (AOR), black (soul/rhythm/and blues), disco, middle of the road (MOR) and progressive country, with or without narration. Included in music services are customized jingles, ID's and one liners (short promos for that particular format), advertising material to stimulate market response, as well as guides and critiques of station programming to enhance the final sound even more.

The oldest format being used is what the industry calls "good music," relatively gentle, lushly orchestrated and highly palatable to 25-plus audiences. This format includes "beautiful music." Tom Ratner, writing in Television/Radio Age,

noted that "music programming on radio is swinging into an era of fickle formats and shifting audiences." This variety of formats reflects the wide availability of music through automated services for AM or FM, yet some automated stations choose not to use a programming service because they cannot afford it. Other stations such as WBCY-Stereo-108 in Charlotte already have the resources, the space, manpower and the time to prepare a music format, and they feel they can do as good as or a better job than programming services in providing a consistent format.

With automation, stations do not have to maintain a music library. Keeping up with the music is a full-time job for someone of the radio staff. Taping a desired flow of music requires time and careful planning to achieve the right flow of music. Utilizing a programming service has eliminated the use of spontaneous human preference in the selection of music. Air personnel can no longer yield to the temptation to play what they like. Programming services, on the other hand, like highly trained program directors, play a variety of music while also playing the proven hits. Depending upon the number of tapes in the format, the same songs won't be heard too frequently, or, with some formats such as "good music," the same song will not be heard within a two-week time span, and

never against the same song that it followed or preceded. Scientifically designed formats are clearly advantageous to automated stations across the country.

"The use of automation," said Van Riper of WBT, "cuts down on overhead; consequently, the operating costs become less." WBT is able to operate their FM automated station with a skeleton staff, using one-third of the staff of WBT-AM. A decided advantage of automation is that, according to Van Riper, "Automation equipment doesn't go on strike or vacation, either." Other efficiency and economy advantages cited by Van Riper: "Automation equipment uses much less room. Desk space is not needed along with other space that manpower or staff takes up."

Personnel have also been freed to do other things within the station due to the use of automation. Paul Michaels, station manager of QSM - better known as Q-98 - of Fayetteville, said, "With the use of automation, personnel have been freed to do other things, such as making more money for the station with good creative productions. Automation reduces the number of staff, but allows the station to pay more money to the staff we have." Michaels added: "We can subsidize AM personnel with FM."

WBCY, Stereo 108 - Charlotte's best rock, uses a Harris automated system which has an eight-day walk-away...that is,

the machine can be programmed eight days in advance, and it can execute the programmed material perfectly unless there is an error in programming or a mechanical malfunction. Some automation systems have a three-day memory; others have a one-day memory. Now the state of the art has increased the memory so that it can be programmed one time, then not be touched again for eight days. Certainly, in the future, even longer periods of time will be realized. This is indeed an efficiency factor in automated broadcasting.

Another efficiency factor available to FM automated broadcasters is the fact that FM broadcasters are licensed full-time, which means they may operate 24 hours a day, compared to many AM stations which are licensed to operate only during daylight hours. Being able to operate 24 hours a day adds to the overall consistency in programming which is a most effective advantage to automated broadcasting. The 24-hour time element is highly appealing to listeners because of its availability. Full-time operation will also give the station more revenue. Automated broadcasting is certainly a commercial advantage, while providing overall consistency which also doesn't leave a lapse in programming.

Automation has also reduced the transcience of the radio staff. Michaels said, "Radio has always been an industry where people come and go. The use of automation cuts down the number of

people needed, but actually requires more talented people in the areas of operation and production." Automated stations usually have in their staff highly talented people. Michaels said, "Personnel in automated stations generally are highly talented; therefore, the station can afford to pay them more, which consequently keeps them there." "With automated radio," Michaels continued, "personnel have literally been freed to do more creative productions and other innovative techniques in programming."

With the use of automation, FM station owners and operators realized they could adopt earlier FM stations' successful format of less talk, more music, fewer commercials, and with stereo sound - which is not yet available to AM stations. This further popularized automation. "Over 50 percent of the audience now listens to FM," said Don Bell, program director of WSOC-FM in Charlotte. Besides less talk and more music, FM appeals to listeners because of its low commercial content. "Folks do not turn on the radio to hear commercials. Folks turn on the radio to hear music," said Bell.

Because of FM's successful format of more music and less talk with stereo sound, FM is now the public's new sound medium. "Thirteen years ago," said Van Riper, "FM was not a high-production medium. FM tried to be the stepchild to AM." Now the reverse is true. FM fidelity is now tops, whereas AM sound cannot

compare to FM sound. Automation has utilized modern technology in producing a flawless stereo sound, and the reproduction techniques have created a likeness that is unequaled. The sound of FM stereo is soothing and compatible with a mood of relaxation, while generally catering to an adult audience. FM broadcasting uses two separate channels to create stereo sound. AM is amplitude modulation, whereby the signal travels along the carrier thereby producing a mono sound. That is, the music only goes through one channel.

According to Paul Michaels of QSM in Fayetteville, "A high percentage of teenagers listen to Q98 - Stereo Rock. Ratings have skyrocketed. This only happened since the station's inception of automation." "FM is the sign of the times," continued Michaels. "It is cool to listen to FM. It's not cool to listen to AM anymore." With its consistent sound people know what to expect. "FM listeners will not be startled with some 'way out' or unexpected remark, which is frequently the case with AM stations," said Michaels.

Automated broadcasting has numerous economic advantages, yet there are some built-in disadvantages. Van Riper of WBT said, "Even though there are numerous advantages to automation, there are also some disadvantages. An automation system can 'get sick'. There are no alarms telling people it's not feeling

up to par. With anything mechanical, there are chilly little nightmares. If a tape breaks, in the middle of a song, this (Harris) system will go on the next deck just as if it played the deck in its entirety, causing the system to go into events prematurely. The system runs according to time, and is programmed to follow a certain time. A broken tape if left undetected, can cause the machine to mess up the programming entirely."

Because automation is designed to work with a power input of 120 volts and 60 cycles per minute, the use of automation can also be disadvantageous in the event of a brown-out. "With a cut-back of electricity to, say, 55 cycles or less," said Van Riper, "the automation system goes into a 'fit of depression.'" When this happens, the time announce will be off, and all automated operations are slowed down," Van Riper said. AM operations and operators, on the other hand, can compensate for the reduced current, making spontaneous adjustments.

Michaels of QSM said, "One disadvantage to automation may be a rigid sound, but with more innovative programming, automation does not have to sound rigid."

Recently, there has been a marriage of the two methods of broadcasting, with some automated stations using a live announcer during their "prime time." Some, for instance, WCGC in Belmont, NC

have a live announcer in the morning "Drive" from 7 until 9 a.m. He is there, primarily, to add some "personality," to give weather, temperature and time checks.

WBCY, "Charlotte's Best Rock," has a female disc jockey from 6 p.m. until midnight. She announces a few records, reads public service announcements from the "Community Switchboard" and gives the weather, time and temperature. From midnight to the morning hours, then, the station runs by automation, but the girl's voice is still on the air as she recorded and programmed the weather and some general P.S.A.'s to play within each hour.

WSOC-FM in Charlotte made a change in their philosophy. Don Bell, program director, said, "We decided there isn't anything live we can't do on automation." That is essentially what they have accomplished, making their station the number one country station in the South. They operate their FM on a schedule like AM. Different personalities are heard throughout the day. WSOC-FM has allowed its automation system some "personality" providing an identity factor to the audience, through cutting voice tracks. For example, from 6 a.m. to 10 a.m., one voice will be heard doing the weather, wishing the listeners a good day, giving the time and temperature, and the station I.D. at the top of the hour, plus the notice of a scheduled event, such as a public service announcement.

With remotes which are live broadcasts the automation system can be joined with a telephone line. Remotes usually include public affairs presentations such as Jaycee projects, Rescue Squad Fund Drives, Civic dinners, banquets, etc. Automation can also be adapted to air sports events with simulcasting or by telephone line hook-up. By simply flipping a switch both AM and FM can air the same programming. This arrangement is called simulcasting.

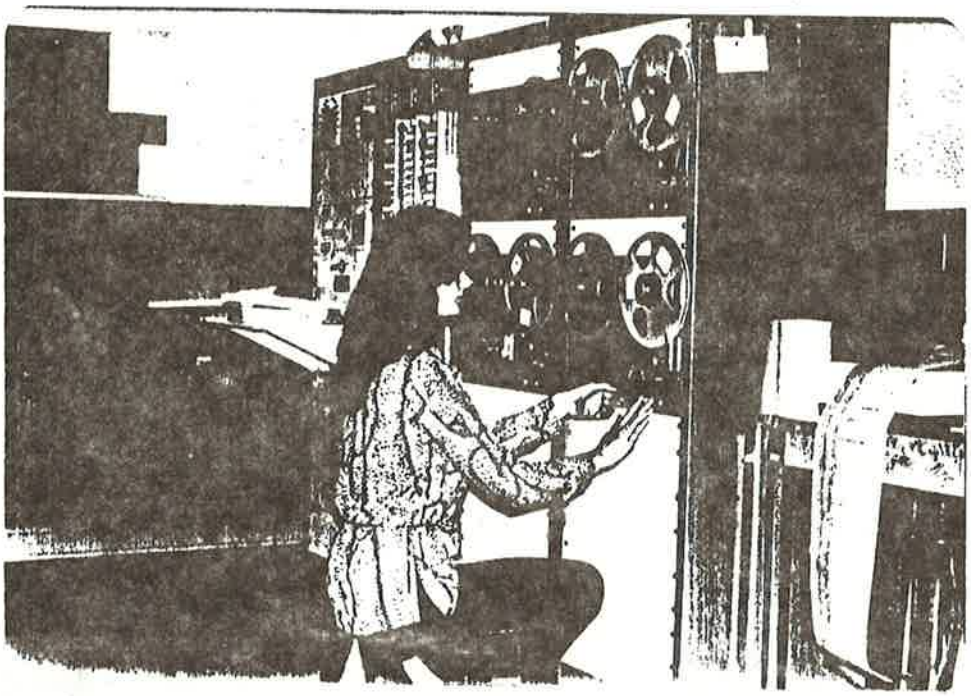
Automation can be adapted to meet community needs, to provide more information while being an entertainment medium, if station owners, managers and program directors accept the obligation. But because automation offers stereo sound for FM, programming is essentially focused on music with a deemphasis on information. The essential AM programming including emphasis on meeting community needs, spontaneous comments by radio personalities, and one-to-one relationships with listeners have been omitted with the use of automation. Roles are changing with the two frequencies. Some AM stations now run news 24 hours a day. Others have switched to a talk show format where announcers respond to listeners on controversial subjects. This emphasis on talk reflects the fact that the quality of AM sound is not up to par with FM.

While automation is available to AM stations, AM stereo has not been approved by the FCC. It is being tested in approximately 10 to 20 markets across the country. The FCC will

decide on which system is best for stereo AM and when it will be available for all AM markets. Some AM stations have made the switch to automation because of efficiency and economic factors while waiting for the approval of stereo sound by the FCC.

Besides causing a demise in spontaneity and ready response to community needs, automation also has many announcers worried. Automation has reduced the need for broadcasters and doesn't offer aspiring broadcasters a medium they can utilize. With programming services offering narration for musical selections and artists, a single broadcaster can do the weather, handle day-to-day operations such as changing the tapes every few hours (See illustration on Page 24), and can also learn to program the machine. Nevertheless, highly-trained personnel will always be needed in the areas of copywriting, production, electrical engineering, program directing, and management.

Unlike AM live broadcasting, automation has not had a unifying and energizing impact on society because of the diversified formats and the lack of community interest programming. Listeners to automated broadcasting and the personnel of such stations become to a degree lethargic as the medium soothes its audience through stereo sound and music. Could this lulling effect have caused station owners,



Candy Stone sets up a music reel for use in a matter of seconds.

managers, and program directors as well to become lethargic in their responsibilities and obligation to serve the "public convenience and necessity" as required by the FCC?

Automation has provided an escape for broadcasters from the daily routine tasks of mechanical operations and from the challenges of creative programming. Because of the wide appeal of automated broadcasting, station owners, managers, and programmers don't want to change existing programming; they don't want to program the system differently because the system works well as it is, providing large revenues for the station as its popularity has already been established.

For listeners, automated broadcasting has provided an escape from the daily problems and vexations of life, while creating with stereo sound a relaxed and compatible mood. Listeners to automated broadcasting are themselves becoming automated. Because of its consistency in programming, listeners know what to expect day-in and day-out, as in their own often boring lives.

Although many stations operating on automation have changed program philosophies, initiated innovations in programming, and creatively adapted some personality and identify factors to the system, for the most part, many other station owners, managers,

and programmers need to take a similar initiative, thereby retaining the chief responsibility of broadcasters: serving the public.

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