

DAYTON PUBLIC LIBRARY

RECEIVED
2ND FLOOR

OCT 22 '45

Television

THE BUSINESS MAGAZINE OF THE INDUSTRY



FCC Chairman Paul A. Porter

October 1945

Thirty Five Cents

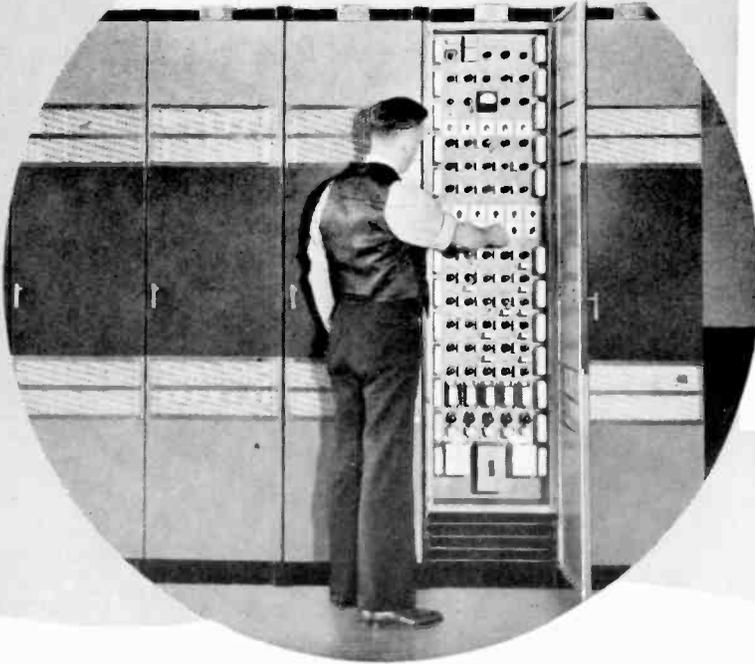
ELECTRONIC TELEVISION IS AN RCA DEVELOPMENT

This is the fifth of a series of advertisements showing that RCA engineers developed the basic essentials of the electronic television system—including tubes and circuits.

RCA built the first all-electronic television transmitters and receivers—the first commercial television station—established the first television relay system—presented the first electronic theatre television—was the first to televise a baseball game and a Broadway play—and was first to televise from an airplane.

RCA is, and will continue to be, the leader in practical, successful commercial television. You may expect the best of all kinds of television transmitting and receiving equipment from RCA.

BUY MORE WAR BONDS



5. THE SYNCHRONIZING GENERATOR

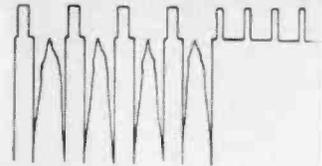
THE first requisite to all-electronic television was the development of pickup tubes (Iconoscopes) capable of efficiently producing electrical impulses proportionate to the varying light intensities in the area scanned.

The second step was the development of picture tubes (Kinescopes) capable of reconverting this electrical energy into light energy, thus producing on a suitable luminous screen a faithful and brilliant image of the scene televised.

The scanning beams in the camera iconoscope, and the receiver Kinescope,

must be rigidly synchronized. This is accomplished by transmitting "synchronizing" pulses along with the picture signal. These pulses are generated in a Synchronizing Generator. They are supplied to both the Iconoscope and the Kinescope, thus keying together the scanning in these two units, and ensuring a perfectly synchronized picture.

The type of synchronizing now almost universally used was developed by RCA engineers. RCA synchronizing generators such as that shown above are used in a number of the best-equipped television stations.



The Fountainhead of Modern Tube Development is RCA



RADIO CORPORATION OF AMERICA

RCA VICTOR DIVISION • CAMDEN, N. J.

In Canada, RCA VICTOR COMPANY LIMITED, Montreal

Television

VOLUME II, NUMBER 8

OCTOBER, 1945

articles

Commissioners Porter, Jett and Durr on Allocations — by Dorothy Holloway	4
Small Station Operation —by Philip Merryman	7
Mademoiselle Tries Out Television — by Mary Gannon	11
Television Outlook in Chicago — by Frederick A. Kugel	15

departments

Washington	17
Advertising	21
Long Shots and Close Ups — by Hal G. Christensen	28
One Man's Reflections — by Dr. Alfred N. Goldsmith	31
Equipment	32
Programming	35
Editorial	40

COVER: FCC Chairman Paul A. Porter, Acme Newspictures, Inc.

Frederick A. Kugel, *Editor and Publisher*

Mary Gannon, *Managing Editor*; Dorothy Holloway, *Washington*

T. R. Kennedy, Jr., *Technical Editor*; Gilbert Winfield, *News*

Jack Kilpatrick, *Patents*

Lawrence Sweeney, *Business Manager*; Evelyn Hellem, *Circulation Manager*

Just talking . . .

Final details have not been worked out for TELEVISION'S annual \$1,000 award but we will probably have the complete set-up for the November issue.

Plans now call for a \$1,000 award for the outstanding accomplishment in the industry, and four "Oscars" for programming, advertising, engineering and education.

Since television is a visual medium, we've decided it's about time that we paid some attention to TELEVISION magazine's visual presentation. We've got some ideas and if you'll be patient with us it won't be long before TELEVISION will capture a visual lay-out that keeps pace with the video art.

Frederick A. Kugel, Publisher

“

WE CAN CARRY SIGHT



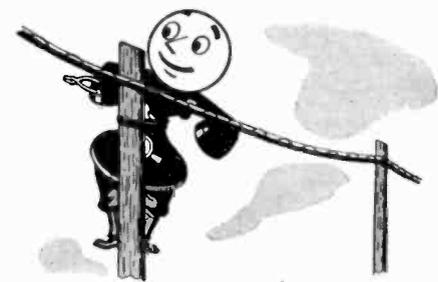
BELL TELEPHONE SYSTEM

AS WELL AS SOUND

Communications is the business of the Bell System. Our contribution to the development of nation-wide television service lies primarily in the transmitting of programs from place to place.

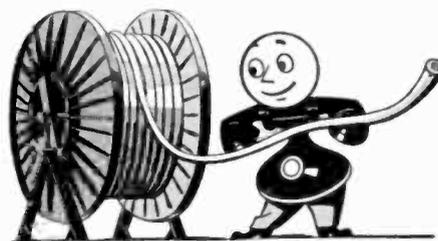
With the facilities now available and in prospect, the Bell System can readily achieve transmission of sight as well as sound programs.

Whether by telephone wire, by coaxial cable, by radio relay, by other methods, or by combinations of any of them, the Bell System intends to use the best, most dependable and most economical means possible.



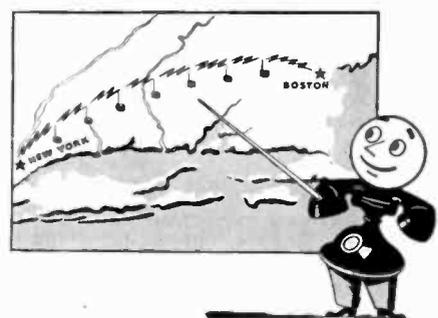
BY WIRE

Regular telephone wires provided with special amplifying equipment and specially shielded pairs of wire in regular telephone cables can be used for television transmission over short distances. They may be used for transmission within cities for local pick-up or studio-transmitter links.



BY COAXIAL CABLE

In addition to use for telephone service, coaxial cable—when properly equipped—is also suitable for transmitting television. By the end of 1945, the Bell System expects to have coaxial cable manufactured for upwards of 2000 route miles. Construction of the remainder of the 6000-7000 miles of routes so far planned can be expected during the next few years.



BY RADIO RELAY SYSTEMS

Work is now under way to set up a Bell System micro-wave radio-relay system between New York and Boston for which research was well advanced before the war. Behind this project is the Bell System's experience in trans-oceanic short-wave telephony and in very short-wave multiplex telephony in this country. Added to this background is the great body of knowledge that has come from the intensive war work done by the Bell Telephone Laboratories in the micro-wave radio field.

FCC'S Porter, Jett and Durr on Allocations

By Dorothy Holloway

"Public interest, convenience and necessity"—that's the yardstick against which the FCC will measure applicants in order to reach a final decision on channel allocations.

It's a loose rule—subject to as many different interpretations as there are personal opinions. That it will remain flexible is shown by the comments of the three FCC members interviewed by TELEVISION.

Main trend of their thinking indicates that there will be no standard, rigid definition—the interpretation will vary with the needs of the community matched against the plans of each applicant. Equally clear is the impression that the Commission will react favorably to those plans which signify intention to utilize local civic and cultural facilities and to offer program diversification. Equally firm is their stand to protect television from "speculation" by fully investigating all promises, and their intention to keep a close check to prevent backsliding.

But that the Commission itself attaches varying degrees of importance to the various factors involved in making a decision is shown in their following statements:



Harris Ewing

Commissioner Paul A. Porter gives his views: Weeding the "best public service operators" out of a group of equally "well-heeled and responsible" television applicants in those areas where the demand for commercial frequencies exceeds the supply will be just about the most difficult job the Commission has had to date, says FCC chairman Paul A. Porter.

But since the job "won't become less difficult overnight," Porter believes FCC must "face up to it and soon." He told TELEVISION that the FCC hopes to start television hearings to sift out likely candidates well before the end of the year.

To do this, he plans to have FCC issue a notice of hearing to would-be television licensees in congested spectrum areas as soon as possible after the October hearing on television rules is completed. Such a notice need not wait until the Commission "buttons up" final operating rules or spells out a final allocation for television, Porter points out, although the "rules and standards will be issued soon."

The FCC chairman, who has always made a practice of tackling the toughest job first, says present plans are to have hearings on the dozen or more applications for the New York City market as soon after argument on the allocations will permit. Hearings will probably be held in New York City.

On that most important of all questions—just what rules of thumb will guide the FCC in its judgement on "public service" in television, the chairman declares he is more certain of what the Commission will not do than precisely what it will do.

Porter emphasizes that the Commission does not have the authority—as he sees it—to bar anyone from the television spectrum by virtue of his occupation or "legal classification", anymore than "we have the right to say no one-eyed redheads shall get in or out of radio."

Generally his position is that the commissioners will try to steer clear of "rigid standards and criteria" in handing out television channels. What will be important in each area, on the other hand, are the needs of the particular community and the plans of the applicant in relation to those needs.

"Of course," Mr. Porter remarked, "Our problem in FCC might be simpler should some applicants favor sharing of channels. Personally, I still have an open mind on the practicality of frequency-sharing." He recognizes, he says, the obvious difficulties

which would arise in reaching agreement on hours of operation in any two- or three-way channel split.

However, the chairman called TELEVISION's attention to a recent Commission action to clear out "squatters" on television channels. He referred to a Commission policy, adopted September 25, tightening up on *experimental* television licenses. Hereafter, the Commission will license experimental television stations only on a clear showing that "a genuine and worthwhile program of research requiring a long-term license" is projected. In turning down several applications for experimental permits, the Commission pointed out that some persons in the past had used the "experimental license" technique merely as a method of getting a foot in the door of commercial television. This is definitely out, under the new FCC policy.

As the forthright FCC chairman sees it, newspaper affiliation, movie tie-ups or ownership of department stores will naturally be considered in any review of an applicant's qualifications. However, in no case, he feels "should such affiliation be a deciding factor one way or the other."

The Commission, as well as broadcasters generally, are impressed with the high costs of building and maintaining video stations. Says Porter, "We recognize that television in the first years will be definitely a luxury item and a cold dollars-and-cents extravagance. The ultimate economic base will develop only through a period of trial and error. Pioneers must be prepared to expend high sums in developmental costs." He assured TELEVISION the seven FCC members would insist on knowing that only "responsible" operators get into the field.

Porter was emphatic on the question of speculators in tele-broadcasting. "So far as public service is concerned, I can say the Commission will seek to exclude speculators or stock promoters from television. We want people who believe in the future of the art and intend to remain with it."

Naturally, the Commission will be "favorably impressed" by program schedules which draw on local talent and make use of university, civic and other cultural facilities of a community. But "paper promises" are not enough. In each case, a full investigation will be made to see what is behind the promise "in terms of financial responsibility, organization and detailed planning."

And, even after an applicant receives a lien on a channel, telebroadcasters who "backslide" on their promises may find it tough going keeping their licenses. (This is in line with an already established FCC "get tough" policy in standard broadcasting, where the frequency problem is relatively simple. Since January 1945 under this policy over 200 stations have been given temporary licenses on grounds their program performance fell short of promises made when last before FCC).

On a favorite subject of his own, the FCC chairman emphasized: "I feel strongly that particular political and social ideologies have no business either in broadcasting or in television. Radio should reflect all points of view—my principal complaint is that social, political and economic controversy have largely disappeared from radio."

In summing up, Mr. Porter reaffirmed the earlier Commission position, that "a truly competitive television service must wait for exploitation of the ultra-highs." For whatever hope it inspires, the chairman added: "We hope we will be able to take care of some of the disappointed applicants when tele moves upstairs to a roomier part of the spectrum."

Commissioner E. K. Jett gives his views: "As I see it, it is impossible to point to any single factor which will be controlling with respect to the Commission's action on television applications."

"However, it goes without saying that the best possible use must be made of the limited number of channels available and the very paucity of channels will have a far-reaching effect on Commission policy."

"The Commission has proposed three channels for community stations, which may be duplicated at relatively short instances. Ten channels are available for metropolitan and rural service. And I think it is safe to say these will be assigned so as to provide



the maximum possible coverage." Jett feels that the coverage potential of stations is an important consideration in reaching the FCC's goal of "giving television service to as many homes as possible."

The commissioner explained that Section 307 of the Communications Act obligates the FCC "to make a fair, efficient and equitable distribution of radio channels to each of the several states and communities." Any allocation plan which overlooks the smaller communities would plainly be in conflict with the intent of the statute.

Already many cities under 300,000 population have applied for television permits—among them such towns as Stockton and Fresno, California; Wilmington, Delaware; Spokane, Washington; Jacksonville, Florida; Des Moines, Iowa; Nashville, Tennessee; Dayton, Ohio; etc, he pointed out.

Jett joins other FCC members in the position that "a truly nationwide and competitive service in every important U. S. area" will have to wait for the opening of the upper bands.

"There is no information before us," the FCC Commission emphasized "as to when television will be ready to move ahead commercially on the upper frequencies. Until that time, we have got to do the best job possible with the 13 channels below 225 megacycles."

Another important consideration, according to Jett, will be program hours on the air. He feels that television stations should be permitted to repeat the same tele-broadcasts at regularly scheduled hours of the day, much like the ordinary movie house. At least, he believes this should be allowed in the early days of television—in particular, if anything like a 42-hour a week program service is required.



Acme Newspictures, Inc.

Commissioner Clifford J. Durr speaks out: "My position is that the Commission—with a scarcity of hotly-contested channels to apportion among many competing applicants—must provide for as much diversification in television broadcasting as possible."

He recognizes that television needs "big business" and money concerns, willing and able to sustain a loss over the first few years of operation. However, Durr believes that diversification in ownership is still an all-important consideration.

Specifically, the Alabama commissioner feels that any network or other operator who wants to own more than three television stations "must make a strong showing that ownership of more than three is in the public interest." (Durr dissented at the time the FCC raised its ceiling on station ownership from three to five).

In general, Durr would oppose giving the same organization even three stations in the same general area. Moreover, he believes that should a network be assigned a channel in the New York market—or other first-rank trading area—it should then move into a second-string population center in the middle or far West.

In other words, he would take the position FCC should not authorize a network to operate stations in New York, Chicago and Los Angeles, if service is not provided in such towns as Omaha, Nebraska; Denver, Colorado, etc.

He added, "Ideally, so far as I am concerned, I should like to see the television industry independent of the movie business. But, practically, I realize that movie interests will naturally gravitate and contribute much to television."

He is not worried about the penetration of newspapers into television, since "generally, the prohibitive costs will keep most publishers out of the field." In any event, according to Durr, they will not become the dominant force they are in standard and threaten to become in FM broadcasting. (Over a third of standard station licensees are newspapers; in FM, over half the pending applications are from publishing groups).

Like Porter, the Alabama commissioner believes the "real development of television will take place in the higher frequencies. That," says Durr, "is where we can look for a real competitive service."

Continuing with our series on the various phases of small station operations, TELEVISION believes that the following report on the feasibility of television in small communities clearly analyzes the many sided picture of small station operations. For this reason, we are reprinting it at this time.

Small Station Operations

by

Philip Merryman

*Director of Facilities and Development
National Broadcasting Company*

MY studies and discussions with affiliates have convinced me that television broadcasting is practical in a town of 25,000 with normal density of population in the surrounding rural area.

Much emphasis has been laid upon the high cost of television broadcasting. It is true that the cost of large scale programs in cities where network programs are originated will far exceed the cost of comparable sound programs. But the program problem confronting the network originating center should be sharply distinguished from the program problem which must be solved by the small television broadcaster. The small broadcaster cannot afford to produce these costly shows. The scale of the live talent programs which are offered by any individual station must be adjusted to fit its revenues, but it does not follow that a television broadcaster in a small town cannot originate live talent entertainment. It only means that he will find it necessary to make use of the program material of local interest which is well suited for television broadcasting but which is now relatively unused because of the limitations of sound broadcasting.

Local Events Have A High Interest Rate

Meetings of local government units, such as the Town Council; meetings of local service clubs; and sports events of primarily local interest are examples of this. Use of program material provided by local events will

not only help the broadcaster, it will be of great benefit to the community itself.

At present it is difficult to go very far into television program material because television has thus far not received the benefit of serious and sustained study by specialists in the program field. I believe it would not be too much to predict that after such study, the increase in the number of different types of television programs will be more rapid than was the increase in types of sound broadcasting programs. The medium is far more flexible, and I believe we are justified in relying upon the ingenuity of these program specialists to make the most of its advantages.

Whether television broadcasting is economically feasible in any city, regardless of its population, depends in the last analysis upon one factor; the effectiveness of television as an entertainment medium, for this determines its value as an advertising medium. Television is potentially the greatest mass entertainment medium, and hence the most effective advertising medium which has yet been devised. Whether both potentialities can be fully realized turns primarily upon the distribution of television receivers and the extent of coverage by television broadcasting.

On the question of coverage, every broadcaster must reconcile the need for transmitter power which will produce the widest circulation, with the problem of transmitter cost and operating expense. For the televi-

sion station in this hypothetical city of 25,000 people, I believe that it would be most practical to use a 5 KW video and 3 KW sound transmitter having a 300 foot antenna. This would enable the broadcaster to transmit a signal which could be satisfactorily received anywhere within a circle having a radius of 30 miles, assuming, of course, that there were no artificial or natural barriers which would limit satisfactory reception. In order to compute the potential market for this station, we have used an actual midwestern town which now has a standard broadcasting station and which, we believe, has a rural population of normal density in the surrounding area. Within the circle of signal coverage, there are now approximately 20,000 wired homes. Even though the number of wired homes surrounding any town in the United States can reasonably be expected to increase as soon as manpower and materials become available, we have based our coverage calculations on this figure alone.

Using the RCA figures for estimated television receiver demand, I believe that in about ten years from the time that these television sets become available all the wired homes in this area which now have radio receivers will have a television receiver. This would be approximately 19,000 homes, or about 95% of the total.

Gradual Expansion Will Meet Growing Distribution

The television station should expand its operations gradually so as to coincide with this gradually expanding distribution of receivers. Eventually, at the end of the tenth year, it will be possible for the station to engage in full operations and thus take advantage of the full distribution of sets.

In order to prove that it is practical to inaugurate television broadcasting in a town of 25,000 on the basis of present equipment costs and operational expense, I have prepared an outline of operations which might be followed by a television station operator in a community of this size.

Because of their previous experience, the pioneers of television broadcasting will probably be those who are now operating sound broadcasting stations. I shall, therefore, discuss the problem of inaugurating television broadcasting primarily upon the assumption that the owner is at present operating a sound station. The required initial investment by the broadcaster would be \$90,000. This would include the cost and installation charge for a 5 KW video and 3 KW sound transmitter, two 16 mm. film projectors, antenna, transmission lines, and the other essential equipment. I have assumed that it would be possible to install this equipment in the transmitter building of the present standard band station, and also that the television antenna could be attached to the present standard band antenna. If a new building were necessary, an additional expenditure of

approximately \$15,000 would be required. Similarly, if it was necessary to erect a new transmitter antenna tower, the additional cost would be about \$5,000.

A Ten-Year Plan for Small Stations

THE FIRST YEAR of television broadcasting would be designed primarily to stimulate interest in television and to encourage the purchase of television receivers. One of the best ways which has been found to accomplish this purpose has been to "spot" television receivers in public places. For this reason a prospective broadcaster would be well advised to include in his initial budget the cost of 10 television receivers which might be distributed in places where they would attract the greatest attention.

During the first year, the station would confine its operations to the minimum number of hours required by the FCC, 15 hours per week. It would be of great assistance to stations of this size if the Commission would consider an amendment to its postwar regulations which would exempt such stations from a minimum hours' requirement during the first year of operation. If such an amendment was adopted, this station would probably not reach the rate of operating 15 hours per week until some time late in the first year. But whether or not the 15 hours' requirement is imposed, programming during the first year would consist only of film projection. The personnel required would be one transmitter engineer, one control room operator, one motion picture projectionist, and one film editor-librarian. The technical men would not be unduly difficult to obtain. For example, NBC will continue giving courses in television broadcasting transmission technique to those engineers who have been enrolled by our standard band broadcasting affiliates.

Although some rentals or purchases of film will be necessary, it will be possible to minimize program expense for this first year of operation since the broadcaster could make use of the large reservoir of free commercial 16 mm. film which has a substantial amount of entertainment value. In addition, the network with which the broadcaster plans eventual affiliation would probably supply him with its film transcriptions of news events and variety shows.

IN THE SECOND YEAR of operations, there would be added to the capital investment the cost of a mobile pick-up unit, amounting to \$40,000. Having this equipment would enable the broadcaster to supplement his existing program service by utilizing the most important aspect of television entertainment—its ability to bring events to the sight and hearing of the audience while the events are going on. This equipment would make it possible for him to take advantage of the wealth of program material which is admirably suited for television broadcasting but which is now relatively unused

because of the limitations of sound broadcasting. By full use of the special events pick-up service, and perhaps by increasing the number of film broadcasts the station would operate 25 hours per week during the second year.

Additional personnel required to operate the mobile unit would be one television cameraman, one licensed portable transmitter operator and control man, and a sound man.

IN THE THIRD YEAR, broadcasting hours would be increased to 35 per week and simple studio facilities would be added to the station's equipment. The two cameras on the mobile unit would be utilized for studio live talent performances. An additional cameraman would be employed so that in the studio both long shots and close-ups could be made. At this time the station should also secure the services of a trained program director who could serve as the nucleus of the station's program staff when full operation is achieved. As in the case of technical personnel, people with such training will be available, due to the course now being given.

The live talent used for studio broadcasting during this period should be available without undue expense. Pianists, other instrumental performers and groups, and studio interviews will probably furnish the principal types of entertainment. Our experience in towns of this size during the early days of sound broadcasting has given us reason to believe that much of this entertainment will be furnished on a volunteer basis. In addition, small groups of traveling professional entertainers will be available at relatively low cost through television network organizations and established theatrical agencies.

THE FOURTH YEAR would represent a developmental period during which the primary emphasis would be upon improving quality rather than upon increasing the number of broadcasting hours. The operating staff would be increased by adding one assistant to the program director.

BY THE FIFTH YEAR of operation, which would take us approximately to 1950, a network affiliation would probably be available to the station. With 7 hours of network programs per day, the broadcaster could increase the number of weekly broadcasting hours to 84. This would mean increasing the staff by employing one transmitter operator, one control room operator, and one alternate who could fill either position. No addition to the local program staff would be required, but the expanding distribution of television receivers and increased advertising revenues might warrant increases in the stations' local program budget.

THE REMAINDER OF THE TEN-YEAR TRANSITIONAL PERIOD would similarly be devoted to improving programs and production techniques as receiver distribution becomes more widespread and increased advertising revenues warrant increased program expenditures.

Rather than examine a year by year projection of expected income and expenses, I have tried instead to emphasize the fact that by planning a gradual expansion of operations, television broadcasting in a small town is not a goal of the distant future but is a service which can be inaugurated soon after frequencies are allocated and equipment is put on the market. A comparison of expected expenses and income for one of the developmental years, and for a year of full operation, will sufficiently indicate that this type of station is potentially profitable.

Expenses Vs. Income

By the end of the fourth year of operation, under the plan outlined above, the station will have purchased all of its technical equipment at a cost of \$135,000 and will be broadcasting 35 hours per week. Its expenses for that year might be itemized as follows:

Maintenance:

Studio, pick-up and transmitter equipment	\$9,000
Power costs	5,000

Salaries:

1 Transmitter engineer	\$2,100	
1 Control room operator	2,100	
2 Television cameramen	4,200	
1 Sound man	2,100	
1 Portable transmitter and control operator	2,100	
1 Program director	3,900	
1 Program assistant	1,500	
1 Film editor-librarian	2,600	
1 Motion picture projectionist	1,000	
1 Stenographer	1,080	22,680

Miscellaneous:

Taxes		
Social Security	1,000	
Property	4,500	5,500
Insurance	150	
Rentals	1,200	
Office Supplies	100	6,950

Depreciation		13,500
Total		\$57,130

The costs projected here, according to Mr. Merryman, are based on analytical estimates and a study of the economics of small town television broadcasting and are substantially in agreement with radio operational costs today in very small cities.

Setting Up The Advertising Rate

In the fourth year of operation the hourly rate charged for advertising will not be based entirely on actual circulation. It would be almost impossible to adjust this rate to circulation at that time because distribution of television receivers will still be comparatively limited. For that reason it would seem advisable to adopt a flat rate which would yield an average of \$50 per sponsored hour to the station. In spite of the limited audience at this time, there is ample reason to expect substantial advertiser support.

FIRST, there is the undeniable fact that sight and sound combined afford a more persuasive and effective medium of sales than sound alone.

SECOND, there is definite prestige value connected with advertising by a new medium operated as a local venture.

THIRD, advertisers have already manifested a desire to go into television advertising as soon as possible to gain experience in its new techniques. This is the best way for them to insure their ability to make the most of this new sales medium when full receiver distribution is achieved.

FOURTH, even though the number of sets in the area of signal coverage is limited, our experience has been that advertisers can count on a comparatively large number of listeners per set.

FIFTH, those who purchased television receivers at an early stage of its development represent, to a large extent, those who are financially able to make substantial consumer purchases.

For these reasons I believe that it would be possible for the broadcaster to sell 25 hours per week during the fourth year of operation at a rate that will produce a net yield of \$50 per hour. Although this is too soon in television's development to expect mass circulation, if only slightly more than one-third of the wired homes within the area of signal coverage had television receivers, it would mean that the net advertising rate would only be about \$7 per 1,000 potential homes. This advertising income would yield a gross revenue of \$65,000 per year. In terms of the cost which I have just outlined, there would be a margin of \$7,870 for program costs and net operating profit. Although this figure is small, it is ample to cover contingencies and provide insurance against losses which may have been incurred earlier in the development period.

In the period of full operations, the broadcaster will be able to reach 19,000 families. By this time it is anticipated that the television station will be a separate and self-contained unit whose activities are wholly divorced from sound broadcasting. Its yearly expenses may be estimated as follows:

Maintenance:

Studio pick-up and transmitter equipment	\$19,000
Power costs	10,000

Salaries:

1 Manager	\$5,200	
1 Salesman	2,400	
1 Bookkeeper	2,050	
1 Porter	1,200	
3 Stenographers	3,600	
2 Transmitter engineers	4,200	
2 Control room operators	4,200	
1 Alternate	2,100	
1 Sound man	2,100	
1 Portable transmitter and control operator	2,100	
2 Television cameramen	4,200	
1 Program director	4,600	
1 Program assistant	1,500	
2 Announcers	3,000	
1 Motion picture projectionist	1,200	
1 Film editor-librarian	2,600	46,250

Miscellaneous:

Taxes		
Social Security	2,000	
Property	4,500	6,500
Insurance	150	
Rentals	1,200	
Office Supplies	200	8,050

Depreciation

13,500

Total

\$96,800

Networks Affiliations

By the time that the television station has reached full operations, under the schedule which I have outlined, it will be affiliated with a national network. The fact that important events all over the nation would be instantly available to the sight and hearing of this audience would mean that an important step has been taken towards converting it from a potential to an actual audience. It seems reasonable to believe that complete coverage of the potential circulation will be more likely in the non-metropolitan areas than in the large cities because of the limitations in the number of recreational activities.

This, combined with the added value of television as a medium for sales stimulation, would assuredly justify a marked increase over the hourly rate charged for advertising on a standard band broadcasting station in a comparable location. But if only two-thirds of the television broadcasting hours were sponsored, and the rate was only enough to yield an average of \$50 per hour, the station would have a yearly gross income of \$145,600. This would be at a rate of only \$3 per thousand families if full distribution of receivers was attained. This income would provide a margin of \$48,800 over the costs which I have described to cover both program expenses and net profit.



MADemoisELLE tries out television

By Mary Gannon

AFTER seven experimental programs produced in cooperation with WCBW (CBS), Mademoiselle editors Frances Hughes and Geri Trotta offer the following commercial formula:

"Advertise subtly. With its combined visual and audible plug, television is so potent that a little bit goes a long way. A 30-second video commercial can easily outweigh in effectiveness, a long, wordy, radio chatter.

"Combine that technique with an interesting, entertaining and attention worthy show, and you'll have an audience. Settle for advertising bilge and you won't. One flick of the dial and you're out."

Although they fumbled a bit on tele techniques and formats at first, on the commercial side they practiced their theory of the indirect plug right from the start. Beyond the opening and closing announcement which said simply, "CBS presents this program as a public service, prepared in collaboration with the staff of "Mademoiselle", no further mention was made that the merchandise shown came from the pages of the magazine — it was just inferred.

And through that inference, every show, no matter what its theme, was a fashion conscious one. Each actress who appeared was dressed in clothes from the latest issue of Mademoiselle — clothes that were right for her, her figure type and the occasion. The audience was constantly

shown what was new in fashion, negligees, hairdos and so on, without a fabric being named or a price being quoted. Mademoiselle believed this overall approach would be more constant and more effective than a few minutes commercial — and the audience reaction proved them right.

But they didn't pass up any chances to hammer the points home a little closer — still using a rubber hammer, however! — by knitting the fashion angles in as part of the show. What was more natural than around Thanksgiving time to weave a Thanksgiving party into the script and have the guests do a real square dance?

Good entertainment — for it added music and action to the program.

Good fashion advertising — for it afforded a perfectly natural way of showing five new party dresses!

Good comedy — for instead of having a soldier find his date by the traditional "you wear a red carnation" method, this one approached each girl and asked if she were wear-

Illustration Above: Here's the Mademoiselle personality—the girl who is the connecting link between the program and the magazine. Shot above was taken during the "Design For Living" presentation which stressed the need for better public housing in the postwar period.

ing a dress that had a peplum on it.

Good commercial — for it gave each girl a chance to explain in a sentence or two what she was wearing. And it's a safe bet that the viewing audience painlessly learned what an "off-shoulder neckline", "new ballet length skirt", etc. looked like — which was good for Mademoiselle!

This same technique for putting fashion across was used in their "Christmas Without Tinfoil" show, with a scene at the Allied Relief Ball. Against the popular theme of the furlough bride, the bridal issue of the magazine was dramatized in "Brides in Wartime". Sequences in an Officer's Canteen proved another good fashion tie-in, while still emphasizing the "Women in Wartime" theme.

These are a few of the more direct approaches used — but by no means were these sequences the main parts of the programs. Rather they were used as natural incidents in a closely coordinated theme.

To some, these methods may not seem good or adequate exploitation — but Mademoiselle believes they are. "We received numbers of letters to prove it", they say.

Editorial Extension

But what's behind a fashion magazine like Mademoiselle experimenting with television? Well, editors Frances Hughes and Geri Trotta feel television, *the* visual medium, is primarily important to a fashion magazine because fashion is so visual. Looking ahead, they feel it's better to have it as an ally than as a potential competitor. Then, too, in television they also saw a means of editorial extension — a chance to dramatize their many different features devoted to all the other interests of young women, exclusive of fashion.

That's the long range point of view which prompted Mademoiselle to approach CBS last fall about a television show which would be a projection of the whole editorial content of the magazine. From this meeting, a program, which would help the war effort by showing young women how to cope with the problems of wartime living, was evolved.

In planning each program, Mademoiselle's two editors worked with the CBS staff in selecting the features from the magazine which editorially helped "Women in Wartime" and which would best fit in with the human documentary type of program they were interested in presenting.

Some features lent themselves to easy scripting; others, such as essay types, were dramatized out of whole cloth. Their overall aim was to point a moral without preaching; to tell, *by showing*, women's place in the war effort.

To give you an idea of how magazine articles can be projected into television, here's a brief resume of some of their program adaptations.

Government Directives

To stress the need for girl geographers (outlined in Government Directive #23), a series of vignettes were planned to dramatize the importance of maps and map-making in the war effort. Two GIs lost in a foxhole, a wounded man in a hospital, WACs on leave in a Paris



Above: Trimming the Christmas tree added a seasonal note to the "Christmas Without Tinfoil" show. Girls, dressed in the latest Mademoiselle fashions, are getting ready to go to the Allied Relief Ball. Mademoiselle's girl is at the desk.



"Brides in Wartime" dramatized the Bridal issue of Mademoiselle. Above: American bride cuts the wedding cake as guests, correctly dressed for the occasion, look on. Below: Flashback to a Polish underground wedding injected a dramatic contrast to the lavishness of the American scene.





Above: In the G-Eyed, particular attention was paid to the setting of the dream sequence. Fleecy clouds were superimposed on the sets of the house to give the whole scene a dreamy, ethereal quality, in order to create the mood.



Opening scene of "Not What's New — What's Now" was set in an Officer's Canteen. Dancing sequence above was a natural for showing Mademoiselle's fashions. Below: One of a series of dramatic vignettes from the same program, showing the girl on the left overhearing a conversation



cafe, were used to show the importance of maps to those in the front lines, as well as the ones on leave. A Mademoiselle editor and an actual geographer from the War Department gave the continuity which was supposed to tie the format together. (More about this later).

Essay Types

A good example of the dramatization of an essay type article was "The New Waiting", which detailed how young wives are taught by Army doctors to meet their wounded husbands and aid in their recovery. As the wife waited to see her husband, a monologue successfully built up the emotional tension of her worry at saying and doing the right thing. Scene ended with her going through the door to meet him — and doing the right thing.

Again using an essay type article pointing the moral of preparing young women for the return of their men from the fighting fronts, "Not What's New — What's Now" was dramatized by a series of vignettes. Scene opened in an officer's club and led into a discussion of the home front between two hostesses and a serviceman. One girl, whose husband was on the way back, became the focal point of interest and through overhearing conversations, got herself educated to the GI's viewpoint. There were a series of about six sets, such as overhearing a conversation in a restaurant, watching a scene in a railway station, etc. Through it all the audience was kept aware of the girl and her unintentional eavesdropping, thus giving a continuity to the program.

Special Issues

"Design for Living" was based on the Design for Living issue of the magazine and was more a public service presentation than a fashion conscious program. Using the theme that returning veterans have a right to come back to a decent standard of living, particularly as applied to housing facilities, the dramatic element was introduced by a young delinquent brought up in a crowded slum area. Slides, models of New York City housing projects, both existing as well as those slated to be built, and animation were also used. Tying in with the overall angle of "Women in Wartime", it emphasized the need for city planning and decent housing for all and fastened on the young women of America the responsibility for making American homes worth coming back to after the war.

The bridal issue of Mademoiselle was a natural for dramatizing "Brides in Wartime". The dramatic elements and the wartime note were underscored by fading from the beautifully dressed American bride to a moving episode about a Polish underground wedding. Besides offering a good chance to show bridal fashions, the needs of the Women's Land Army were introduced by fading from the meagre food at the Polish wedding to the beautiful white wedding cake of the American bride, who tells her guests she has volunteered for the Women's Land Army when her husband goes back to camp. The G-Eyed issue was based on the GI slant on everything. The show translating this slant began with a scene in office where

GI's were shown new fashions on beautiful girls and given a chance to air their likes and dislikes. A dream sequence during which a sergeant fell asleep in India gave a chance to show the GI's dream of the perfect furlough, including the dream girl he hopes to find awaiting him in their perfect little dream house. The GI's taste in movie queens, music, etc. were conveyed by a series of little comedy vignettes held together by Mademoiselle's regular narrator.

TELE TECHNIQUES

But Mademoiselle was no different than the others who pioneered in video. They too learned the hard way — through mistakes. Since they stumbled and picked themselves up many times, here are some do's and don'ts which they offer to those who are going to tread the trail of television programming after them.

DON'T let the continuity of your show depend on an untested, amateur ad-libber.

In their first CBS show, they made the mistake of hanging the continuity on a Mademoiselle editor who was too busy to rehearse, and a Washington geographer who arrived at the last minute so he couldn't rehearse. Because he was an authority in his line, they took it for granted he could ad-lib. But were they let down! He couldn't ad-lib a line! He missed cues, mugged, and finally closed up tighter than a clam, not saying a word — while the baffled audience went from a foxhole to a hospital to a Paris cafe without ever knowing why.

DON'T depend on "names" — they usually can't act on a professional level.

While a Wave has undoubtedly made a splendid contribution to the war effort, her contribution to a television show is nil, unless she is telegenic and an experienced actress. Mademoiselle found that out when they combined the radio technique of talking with the mistake of using an amateur — and got a boring sequence, and terrible video, as a result.

DON'T underestimate the value of rehearsals.

The success of your show depends on the expertness and ease with which the performers deliver their lines. Average rehearsal time for the CBS-Mademoiselle series, which ran for 30 minutes, was seventeen to twenty hours.

DON'T go overboard on props — but don't skimp either and ruin the effect.

To tie in with the Thanksgiving issue (mentioned above), a Thanksgiving buffet party was included in the script. All the food, including the turkey, was actually prepared by the Chef of the Waldorf Astoria Hotel, following Mademoiselle's recipes from their "Food for Fun and Fitness" column. This touch of realism made a solid dent in the budget — and what happened? The turkey never did show up on the screen! Papier mache would have done just as well, and been lots cheaper.

However, effective scenery is often needed to put across an idea. This was particularly true in the dramatization of the G-Eyed issue. To set the mood for the dream sequence, fleecy clouds were superimposed on the sets of the house to give the whole scene a dreamy ethereal quality.

All scenic effects were worked out by CBS, with both parties agreeing that simple scenes were best.

DON'T slacken the pace.

Fast moving action and quick changes are important in a well paced show. In "Christmas Without Tinfoil", a sequence which worked out particularly well showed the gaiety at the Allied Relief Ball. While one camera was still on the party girls, two of them slipped through a doorway onto the next set. They quickly wrapped themselves in white hoover aprons and just 30 seconds later were picked up by the second camera as physiotherapists working with children in a hospital. From the "moral" point of view, it tied in with the Government Directive of the month on "Women's Place in Wartime". And because of the ease with which that 30-second change was made and because the rest of the show was so tightly knit by the CBS staff, many spectators thought it was a film — which seems to be the highest compliment a viewer can pay a television producer these days!

DON'T get discouraged if you fail — out of even a bad show, you can learn something good.

From all these ups-and-downs, Mademoiselle evolved two devices which proved particularly good television techniques.

One is the device of dissolving back and forth from pages of the magazine to their living counterparts in the studio.

Typical example of this was a cartoon strip from Mademoiselle, which showed a WAC in a Paris cafe, dancing with an Apache who tosses her around in traditional fashion. Punch finish comes when she picks herself up, and using jujitsu, wipes the floor up with him. In planning this sequence for television, professional dancers were used. A series of dissolves back and forth between the original drawings, which actually appeared in the magazine, to the live dancers related the sequence to the magazine and developed a new technique peculiar to television.

The other is a good overall program formula — a series of unrelated dramatic vignettes, held together by a person who represents Mademoiselle.

This personality, with professional stage experience, had her lines drilled into her till her delivery had the easy informality of a girl chatting quietly with her friends. As the connecting link between a series of quick, dramatic vignettes, the Mademoiselle girl related the material to the magazine and cued the audience for the next scene.

Mademoiselle's editors Hughes and Trotta also say:

"REMEMBER video technique is a new art — it is neither a steal from the radio, nor from the stage, nor from the screen."

Fashion would seem to indicate fashion models — but television is a new medium and as such demands a talent of its own. Be careful in your casting. Mademoiselle used fashion models once. Result? "They looked like dummies come to life". An actress can wear clothes — give the impression that they're part of her. But the mike can do strange things. Tele-test your cast — judge them, the way your audience will judge them, in the receiving room.

Television Outlook In

By Frederick A. Kugel



THE wind from the windy city will blow clear across to Washington if Colonel McCormick's WGN television application isn't granted. For under the FCC's proposed television allocations Chicago comes out with five video channels and at this writing Chicago has one station on the air, a second under construction and five applicants for commercial stations whose requests are already on file with the commission. Chicago, the country's second largest city has a population of almost three and one-half million. The trading area takes in more than five million people. Estimated retail sales for the Chicago area only is two billion three hundred million and wholesale figures total more than five billion. It is obvious that all these figures have been taken into consideration for an analysis of applicants shows that all networks and potential network operators have applied for stations in Chicago.

Chicago has been receiving regular television programs four nights a week from Balaban & Katz, WBKB, which first went on the air in October 1943. Zenith Radio Corporation has held a construction permit for WTZR since 1941. The construction will only start now. Zenith has now resumed operations over W9XZV, with the programming limited to films.

Balaban & Katz

This Paramount subsidiary in addition to its commercial operation has also the following experimental authorizations in Chicago:

W9XBK, channel 2, 4 kw visual and 2 kw aural.

W9XBB, 10 watts, portable mobile, area of Chicago.

W9XBT, channel 11 and 12, 204-216 mc, 40 watts power television relay with W9XBK.

W9XPR, frequency band 384-396 mc, 10 watts power.
WBKB now operates on channel 2, 4 kw. visual and 2 kw. aural. Transmitters and studios are located at 190 N. State Street.

Zenith

Zenith plans to locate its commercial station, WTZR, at 135 S. La Salle Street. They show a total capital of more than ten million to finance television activities in the Chicago area. The company now has an application before the FCC to make changes in its visual transmitters and to extend again commencement and completion dates of construction of this station. The FCC has granted Zenith the following experimental authorizations in Chicago:

W9XZC — frequency to be assigned, 1 kw power, visual and aural.

W9XZV — channel 1, 50-56 mc, 1 kw visual and aural.

In addition to these two stations these five applicants have applied to the FCC for commercial permits.

American Broadcasting Company

American has filed for a commercial station, proposing use of channel 6 (82-88 mc), using General Electric equipment with power of 4 kw visual and 2 kw aural.

The network has not yet chosen a studio location but a transmitter site at Madison and North Canal Streets, has been decided upon. American is prepared to put out \$184,250 for complete transmitter and studio facilities and spend \$13,000 in monthly operating expenses. (Estimates based upon prewar figures supplied by General Electric.)

They plan to cover some 4,335,970 people, and to use studio and chain programs. The network did not file program plans beyond a statement that its tele schedule will include many features now being broadcast over its sound facilities. Dr. Frank Kear of Washington is consulting engineer.

National Broadcasting Company

This is an application for a commercial station to operate on channel 4, using RCA equipment with 3 kw power, visual and aural. The NBC transmitter will be located at the Civic Opera House, 20 North Wacker Drive and the video studios at the Merchandise Mart in downtown Chicago.

NBC plans service to 4,143,345 people in the Chicago area. The net's original request was for channel 1, already held by Zenith in Chicago. In April 1944, Zenith informed the FCC it would oppose any attempt by NBC to take away Channel 1 on which its experimental station W9XZV is licensed to operate. NBC subsequently amended its application.

NBC has estimated its Chicago station will cost \$202,500 with monthly operating expenses around \$6,500.

Johnson Kennedy Radio Corp.

Has applied for a commercial station, with transmitter site proposed, at 75 E. Wacker Drive, using RCA equipment and 1 kw aural and visual power. Studio location has not yet been chosen. Station is asking for channel 7. Its antenna will be mounted on a tower of the Mather Building at 1207 feet above mean sea level. From this location, station plans service to 4,371,000 people.

Proposed station will cost \$136,000 with estimated monthly expenses around \$5,000, excluding program production costs. Johnson-Kennedy will program 65 hours a week initially, will use rebroadcasts and chain programs when they become available. George Davis of Washington is consulting engineer. Ralph Atlass, company president, is also licensee of WIND, Chicago and WLOL, Minneapolis.

Raytheon Manufacturing Co.

Raytheon has asked for a commercial station on the 44-50 mc band, using 40 kw visual and 20 kw aural power. It plans to locate both transmitter and studio at 188 W. Randolph Street. It will spend between \$400,000 and \$600,000 for the station and plans service to an estimated population of 4,592,000.

Its antenna will be placed at an overall height of 618 feet above ground level. Height of substructure on which antenna will be located is 490 feet. Raymond M. Wilmotte prepared the engineering data.

Chicago Tribune

The Chicago Tribune station is seeking a commercial station to provide service approximately 40 miles distant from its transmitter location at 435 N. Michigan Avenue on top the Chicago Tribune Building. The station, applying for channel 4 (78-84 mc), plans to use General Electric equipment with 40 kw video and 20 kw sound

transmitters. It will cover outlying cities of Waukegan, Libertyville, Elgin, St. Charles, Aurora, Joliet, Chicago Heights, all in Illinois, and Hammond and Gary in Indiana.

They are prepared to spend between \$450,000, and \$500,000 for complete studio and transmitter facilities, with monthly operating costs pegged around \$3,500. WGN has a bond deposit of \$12,500 on file with General Electric for postwar delivery of a video transmitter.

No plans for hours of operation or type of programming have yet been submitted.

An analysis of estimated operating costs submitted by applicants throughout the country shows a wide variance. Estimates have ranged from \$1,000 to \$20,000 a month for operating costs for approximately the same type of program service. NBC's figures of estimated operating costs is \$6,500 monthly. With more than six years of operational experience with their WNBT in New York, NBC's figure is probably closer to the real mark than the many other estimates.

Experimental Permits

At the same time, Raytheon, the Columbia Broadcasting System and Television Productions, Inc., a Paramount Pictures subsidiary have also applied for construction permits for experimental operation in the Chicago area:

Raytheon is asking here for an experimental station, using 5 kw power, aural and visual, to operate in bands between 480 and 920 mc. Its application states that the company is "intensely interested in the development of high definition television above 400 megacycles."

Studio and transmitter for the experimental outlet, as well as for its commercial station, will be located at 188 W. Randolph. Estimated costs are: transmitter, \$150,000; studio, \$75,000; antenna system, \$25,000. The company has allocated \$164,000 for its overall experimentation program. Willis Phillips, manager of the Raytheon Laboratories in Chicago and former television engineer with Zenith Radio Corporation will direct its research program.

CBS, in line with its plans for ultra-high frequency video, has filed for an experimental television station operating in the 460-476 megacycle band to program to over two and a half million persons in the Chicago metropolitan area.

The CBS engineering statement points out that aural transmission will be done by using synchronizing pulses of the visual transmitter. This will make possible use of a narrower channel, cheaper receivers and permit the use of additional antenna space for picture transmission, according to the application.

Television Productions has applied for two portable-mobile experimental transmitters to be used as terminal relays in Chicago as part of its overall plans for a nationwide television network system. It is asking for channels 9 and 10; and 11 and 12 for its two relay units, each to operate with 100 watts power.

With WBKB and W9XZV now operating, plus the possibility of one of the other applicants receiving one of the first transmitters to roll off the lines, Chicago should have at least three operating stations on the air by June 1946.

WASHINGTON

UNDER FCC's proposed television assignments (released September 20), the West fares far better than the East in staking a claim on video channels. At the same time, the second-string population centers in the East come out much better than the heavy trading areas like New York and Philadelphia under FCC's latest TV rationing plan.

This latest blueprint for tele expansion is "on the face" consistent with FCC's announced goal of "making television available to more people in more places." To do this, the Commission has shaved down the number of channels proposed earlier for "pay-dirt" cities like New York, Philadelphia, Chicago, Pittsburgh and Washington, and turned them over to "lesser fry" towns like Wilmington, Del.; Bridgeport and New Haven, Conn.; Trenton, New Jersey; Harrisburg and Reading, Pa., etc. (These smaller communities were largely left out in earlier TV allocations.)

The cold figures show how much—or in most cases how little—tele will be available in 12 major markets. Hardest hit, of course, is New York City, formerly given seven, and now slated for only four video outlets. Under industry pressure, FCC is already showing signs of letting a fifth outlet in the New York market).

On the other side of the picture, Los Angeles comes out with six tele channels; Chicago, Boston and the San Francisco-Oakland area, each with five; St. Louis, like New York, with four; and Philadelphia, Pittsburgh, Cleveland, Detroit, Baltimore and Washington, all with three.

And irony of ironies, such smaller cities as Sioux City, Iowa; Ft. Wayne, Indiana; and Charleston, W. Va., will each have four channels, which puts them on a par with the all-powerful New York market.

Industry Feeling Runs High

This discrepancy in TV assignments is the focus of industry attack at the current hearings on FCC's

proposals. Majority opinion holds that FCC clearly defeats its own purpose of giving a "widespread" tele service by hamstringing its development in towns where there is sufficient capital to exploit possibilities of tele NOW.

The point is made that in several areas where FCC has made provision for stations, not a single applicant has signified his intention of going into tele. Such towns cannot support tele at its present "luxury" costs of construction and operation, group argues.

Another segment of industry opinion claims that the FCC, influenced by CBS and the Cowles interests, is deliberately holding low-frequency video broadcasting down. While FCC disclaims this, it is persuasive that the Commission once again points to the ultra-highs as final resting place of television. Emphasis is again placed on the ultra-highs as TV's "safety-valve" and the only means of obtaining a "nation-wide and competitive television" broadcast service.

Effect on Televiewing

Just what does the FCC proposal mean to your televiewing? In New York, four channels are proposed. With CBS, NBC and DuMont already active in the New York area (alho FCC did NOT give New York City channel 5 on which DuMont planned to operate) this means no more than one additional outlet may be authorized. Meanwhile, 13 applicants are vying with each other for valuable TV spectrum space in this area.

In Chicago, there are five channels proposed and five applicants clamoring to get on the air. An added difficulty presents itself, however, due to the fact that Balaban & Katz is already licensed and Zenith has a construction permit to operate in Chicago. Or, in other words, two of the five channels are already spoken for.

Out West, where air is freer for tele expansion, 10 applicants are competing for the six channels spotted

for Los Angeles. But two of the six channels are taken by "squatters'" preference, since Don Lee has a construction permit in Hollywood and Television Productions, Inc. has large equities in tele experimentation in the Los Angeles area.

In San Francisco and Oakland, with five channels between them, only two candidates have shown up to date.

FCC calls on industry to say whether sharing of television channels can be looked on as solution to the spectrum - squeeze. Significantly the six present licensees and three C.P. holders are generally opposed to the idea. On the other hand, some of the have-nots take the position that if sharing is the only way to get in tele, they will go along with the idea. They say that since low-frequency television is obviously an interim arrangement, this will at least give them a headstart on an upstairs television service. Networks are, of course, "agin" the sharing proposal, though they would be least affected in most areas. An obvious argument against it is difficulty of building up listener good-will on a share-time, alternate-hours programming arrangement.

Highlights of the FCC proposals are as follows:

MINIMUM OPERATING SCHEDULE — FCC proposes a minimum 6-hour a day operation. This is considerable hike over pre-war requirement of 15 hours a week and is expected to call forth general opposition at hearing. Most of plans of 133 TV applications now at FCC fall considerably short of this proposal. General average runs gamut from 15 to 30 hours a week, with few proposing as much as 42 hours.

AN FCC spokesman said if industry goes along on "sharing of channels," FCC might let two licensees split the 6-hour requirement two ways, or in the alternative, require each operating station to be on the air, say, four hours a day.

METROPOLITAN STATIONS — As in FM, FCC sets up specific category of

stations designed to serve a single metropolitan area and surrounding rural area. Metropolitan outlets will occupy tele channels 2 through 6 and 7 through 11 inclusive. FCC will determine approximate service area of each station. Stations will be authorized for a peak radiated power of 50 kw, with a minimum height of 500 feet above ground level for antennae. However, FCC makes allowances to provide for lower towers where it is "not practical" to meet the 500 ft. requirement. (For example, the NBC proposal for a tele outlet in Washington, D. C., specifies only a 250-foot tower. NBC has made showing to Zoning Commission that this station can serve most of Washington and outside areas as far south as Annapolis. Moreover, Zoning Commission is inclined to frown on a 500 foot antenna as an eyesore in fashionable uptown D. C. neighborhood. So FCC may, in this case, accede to request for less than a 500 foot antenna.)

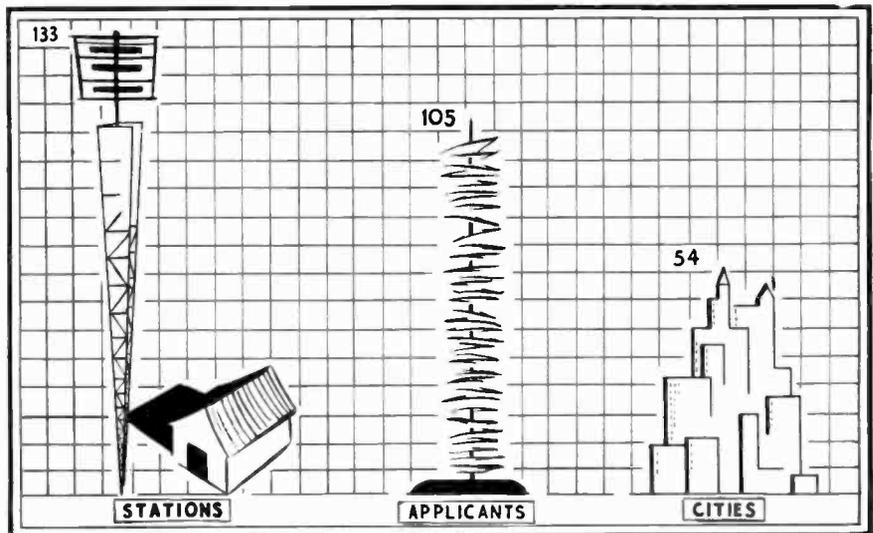
For metropolitan stations, FCC will require a signal of at least 500 millivolts per meter contour over the entire metropolitan district and at least 5,000 over the business district to be served.

COMMUNITY STATIONS — FCC defines a community station as one serving cities which have fewer than two metropolitan TV outlets. In some cases, however, they will be permitted in cities with two or more metropolitan stations.

Ceiling of 1 kw radiated power is specified for community stations with antenna height of 500 feet above the average ground level. (FCC engineers arrived at this by taking a statistical average of all TV applications on file at commission and found most towers ranged around 455 feet above ground level.)

Community stations on the same channel must be 90 miles distant; on adjacent channels, 45 miles apart. For both metropolitan and community stations, FCC insists that studio is located in main city to be served with the transmitter as near as possible to the center of the area provided service.

Tele channels 1, 12 and 13 are given over to community stations. These are less desirable channels, of course. Channel 1 is most subject to sporadic E or long-distance interference, and only low-powered equipment is practicable on the 12 and 13 channels. However, they are adequate for type of service proposed



for community outlets.

RURAL STATIONS — This is an almost academic classification since FCC is not under illusion that people will set up tele stations exclusively for rural populations. However, some rural service will be possible by extending rural coverage of metropolitan stations.

MULTIPLE OWNERSHIP—The FCC's proposal that no one own more than one tele outlet in any one community or five throughout the country is not expected to receive much industry attention at hearing. The overall limit of five stations has been in effect over a year, and outside of networks, few concerns are prepared to invest this much in immediate tele expansion.

NETWORK REGULATIONS—The FCC application of network regs to TV is also considered less important although networks may suggest, as they did at FM hearing, that industry is "too young" for such a limitation.

COMMON ANTENNA SITES—The FCC requirement that TV applicants share sites under certain conditions came as no surprise, since the pattern was already well established in FM. Moreover, even more difficult problem exists in locating TV transmitters where they will give adequate service and at same time neither interfere with local air service or offend "esthetic tastes" of local zoning commissions.

ANNOUNCEMENT OF MECHANICAL REPRODUCTIONS — There seems little doubt FCC will follow through on a proposal to require announcement when motion pictures are used in televising. This is almost academic in view of standard practices for

transcription announcements in sound broadcasting.

NEW APPLICATIONS

The FCC accepted and filed applications from the Inter-mountain Broadcasting Company of Salt Lake City requesting a construction permit for a commercial television station to be operated on Channel 2.

The construction permit of the Lancaster Television Company for a commercial television station operating on Channel 2 is the second application from the small city of Lancaster, Pennsylvania.

Request of WCAE, Inc. of Pittsburgh, Pennsylvania for a construction permit to operate a new commercial television station on Channel 5 was accepted and filed.

The application for a construction permit for an experimental station by the Pacific Coast Broadcasting Company was accepted and filed by the commission on September 24th and in the action of September 25th the application was turned down.

The Commission reemphasized its rule that applicants for experimental station permits must make a satisfactory showing of a program of research and experimentation. In denying applications which included requests for experimentation for the purpose of conducting site surveys or field intensity measurements, the Commission pointed out that such work required radiations for only a short time and didn't justify a long term station license. Authorization to operate a station for 30 days or less can be applied for under Sec. 1365 of the FCC rules. — D. H.

Text of FCC's Proposed Allocations

1. **Minimum Operating Schedule.**—The licensee of each television broadcast station shall maintain a regular operating schedule transmitting a standard television signal for a total of 6 hours per day. In addition, comment is requested as to whether the minimum operating schedule should be more or less than 6 hours per day and as to whether the Commission should provide for the sharing of some or all television channels by two or more licensees. If such sharing is provided for, the Commission will prescribe the hours each licensee is to operate.

2. **Multiple Ownership.**—No person (including all persons under common control*) shall, directly or indirectly, own, operate, or control more than one television broadcast station, except upon a showing (1) that such ownership, operation, or control would foster competition among television broadcast stations or provide a television broadcast service distinct and separate from existing services, and (2) that such ownership, operation or control would not result in the concentration of control of television broadcasting facilities in a manner inconsistent with public interest, convenience, or necessity: *Provided, however,* That no person (including all persons under common control), shall directly or indirectly own, operate, or control more than one television broadcast station that would serve substantially the same service area: *And provided, further,* That the Commission will regard the ownership, operation, or control of more than five television broadcast stations as constituting a concentration of control of television broadcasting facilities in a manner inconsistent with public interest, convenience, or necessity.

3. **Network Regulations.**—The chain broadcasting regulations shall be applicable to television stations.

4. **Use of Common Antenna Site.**—No television license or renewal of a television license will be granted to any one person who owns, leases, or controls a particular site which is peculiarly suitable for television broadcasting in a particular area; and (1) which is not available for use by other television licensees; and (2) no other comparable site is available in the area; and (3) where the exclusive use of such site by the applicant or licensee would unduly limit the number of television stations that can be authorized in a particular area or would unduly restrict competition among television stations.

5. **Announcement of Mechanical Reproductions.**—Comment is invited concerning the desirability of requiring an appropriate announcement to be made when motion pictures or other mechanical reproductions are used in television broadcasting.

6. **Station Identification.**—Comment is requested as to whether station identification should be by aural means, by video means, or by both and how frequently such announcements should be made.

7. **Allocation Plan.**—The 13 channels available for television broadcasting shall be divided as follows:

(a) **Community Stations.**—A community station is designed to render service to those cities or communities which have fewer than two metropolitan stations as shown in the table below. However, community stations may be assigned to cities with two or more metropolitan stations upon a showing that this would not make impossible the assignment of a station to another city which has a reasonable probability of a station being located there. The power of a community station may not exceed an effective radiated peak power of 1 kilowatt with a maximum antenna height of 500 feet above the average terrain ten miles from the transmitter. Upon a proper showing that an antenna height in excess of 500 feet is available, authorization will be issued for such higher antenna but the Commission may in such cases require a reduction in radiated power.

A minimum separation of 90 miles normally will be provided in the case of community stations on the same channel and a minimum of 45 miles on adjacent channels. However, upon a showing that public interest would be served thereby, community stations may be located at closer distances. The main studio shall be located in the city or town served and the transmitter shall be located as near the center of the city as practicable.

Three television channels will be assigned to community stations. They are television channels 1, 12 and 13.

(b) **Metropolitan Stations.**—Metropolitan stations may be as-

signed to television channels 2 through 6 and 7 through 11, both inclusive. They are designed primarily to render service to a single metropolitan district or a principal city and to the rural area surrounding such metropolitan district or principal city. The Commission will determine the approximate service area* for metropolitan stations.

The table below sets forth the channels which are available at this time for the areas indicated. Attention should be called to the fact that as is pointed out in the Commission's Report of May 25, 1945, the 13 television channels which are available for television below 300 mc are insufficient to make possible a truly nation-wide and competitive television system. Hence, the Commission has made available the space between 480 and 920 mc for experimental television where more space exists and where color pictures and superior monochrome pictures can be developed through the use of wider channels. Applications may be filed for experimental stations between 480 and 920 mc.

The table below will be revised from time to time depending upon the demand for television stations which may exist in the various cities. Where it is desired to use a different channel in any such area, or to use one of the channels in another area conflicting therewith, it must be shown that public interest, convenience, or necessity will be better served thereby than by the allocation set forth in the table.

Stations in metropolitan or city areas not listed in the table will not be assigned closer than 150 miles on the same channel or 75 miles on adjacent channels, except upon an adequate showing that public interest, convenience, or necessity would be better served thereby or that by using lower power or by other means equivalent protection is provided.

Metropolitan stations will not be authorized to operate with an effective radiated peak power in excess of 50 kilowatts. No restriction is proposed at this time with respect to the maximum antenna height; however, a minimum height of 500 feet above the average terrain will be required, except upon a showing that it is not practical to obtain such height. In all cases the main studio shall be located in the city or metropolitan district with which the station is associated and the transmitter should be located so as to provide the maximum service to the city or metropolitan district and the surrounding rural area. A signal of at least 500 uv/m over the entire metropolitan district and at least 5000 uv/m over the business district of the principal city should be obtained (for a reasonable period reduced power will be permitted).

(c) **Rural Stations.**—Licensees of metropolitan stations or applicants who desire to qualify as licensees of rural stations must make a special showing to the Commission that they propose to serve an area more extensive than that served by a metropolitan station and that the additional area proposed to be served is predominantly rural** in character. In addition, it must be shown that such use of the channel will not cause objectionable interference to other television stations or prevent the assignment of other television stations where there is reasonable evidence of the probability of such station being located in the future.

* The word "control" as used herein is not limited to majority stock ownership, but includes actual working control in whatever manner exercised.

** As a guide, Commission will consider that the additional area beyond the service area of a metropolitan station which is proposed to be served is predominantly rural in character if at least 50 per cent of the population proposed to be added within the 500 uv/m contour live in rural areas or in cities smaller than 10,000. In making this computation, cities with population in excess of 10,000 shall be excluded if the signal in such cities is less than 2000 uv/m. Exceptions to this rule will be made where a showing is made to the Commission that due to conditions of terrain or local factors, more extended service to unserved rural areas is possible by licensing rural stations to serve an area which does not meet the above requirements than would otherwise be possible.

*** In determining service areas for certain communities, the Commission will give consideration to population distribution, terrain, trade areas, economies and other pertinent factors. There are several current and recognized authorities on retail trading areas or consumer trading areas from which the applicant may prepare its showing and to which the Commission will give consideration in making its determination. Among these recognized authorities are the following: J. Walter Thompson (Retail Shopping Areas), Hearst Magazines, Inc. (Consumer Trading Areas), Rand McNally Map Co. (Trading Areas), and Hagstrom Map Co.'s Four Color Retail Trading Area Map.

Television Channel Allocations In Metropolitan Districts

(Note: This table applies only to the 13 television channels available for commercial television. In addition, applications may be filed for experimental television stations between 480 and 920 megacycles.)

Metropolitan District (U. S. Census 1940)	Sales Rank	Population	Channel Nos. (Metro- politan)	Total Stations		Metropolitan District (U. S. Census 1940)	Sales Rank	Population	Channel Nos. (Metro- politan)	Total Stations		
				Met- ro- pol- itan	Com- mu- nity					Met- ro- pol- itan	Com- mu- nity	
Akron	35	349,705	2	1	1	Memphis	37	332,477	2, 4, 5, 7, 9	5	—	
{ Albany	23	431,575	2, 4, 7, 9, 11	5	—	Miami	38	250,537	2, 4, 5, 7	4	—	
{ Schenectady						Milwaukee	15	790,336	3, 8, 10	3	—	
{ Troy						{ Minneapolis	11	911,077	2, 4, 7, 9	4	—	
{ Allentown	43	325,142	—	0	1	{ St. Paul	119	144,906	3, 5, 9, 11	4	—	
{ Bethlehem						Mobile		126	93,697	6, 10	2	1
{ Easton						Montgomery		56	211,769	4, 5, 7, 9	4	—
Altoona	111	114,094	9	1	1	New Haven	39	308,228	5	1	0	
Amarillo	136	53,463	2, 4, 5, 7	4	1	New Orleans	31	540,030	2, 4, 6, 7, 10	5	—	
Asheville	132	76,324	5, 7	2	—	{ New York	1	11,690,520	2, 4, 7, 9	4	—	
Atlanta	25	442,294	2, 5, 8, 11	4	—	{ Northeastern New Jersey						
Atlantic City	83	100,096	—	0	1	{ Norfolk	47	330,396	4, 7, 11	3	—	
Augusta, Ga.	135	87,809	5	1	1	{ Portsmouth						
Austin	106	106,193	5, 8, 10	2	—	{ Newport News						
Baltimore	13	1,046,692	6, 7, 11	3	0	Oklahoma City	52	221,229	2, 4, 5, 9	4	—	
{ Beaumont	90	138,608	8, 10	4	—	{ Omaha	40	287,269	3, 6, 7	3	—	
{ Port Arthur						{ Council Bluffs	69	162,566	3, 5	2	—	
Binghamton	75	145,156	2	1	1	Peoria						73
Birmingham	42	407,851	4, 9	2	—	Philadelphia	4	2,898,644	3, 8, 10	3	0	
Boston	5	2,350,514	2, 4, 7	3	0	Phoenix	84	121,828	2, 4, 5, 7	4	—	
Bridgeport, Conn.	53	216,621	—	0	1	Pittsburgh	8	1,994,060	3, 8, 10	3	—	
{ Buffalo	14	857,719	4, 7, 9	3	—	Portland, Maine	89	106,566	3, 6, 8	3	—	
{ Niagara						Portland, Oreg.	22	406,406	3, 5, 8, 10	4	—	
Canton, Ohio	63	200,352	—	0	1	Providence, R. I.	18	711,500	9	1	1	
Cedar Rapids	115	73,219	7, 11	2	—	Pueblo	140	62,039	3, 6, 8, 10	4	—	
Charleston, S. C.	127	98,711	7, 10	2	—	{ Racine	97	135,075	—	0	1	
Charleston, W. Va.	88	136,332	2, 7, 11	3	—	{ Kenosha						
Charlotte	99	112,986	3, 9, 11	3	1	Reading	73	175,355	—	0	1	
Chattanooga	76	193,215	3, 5, 10	3	—	Richmond	48	245,674	3, 8, 10	3	—	
Chicago	2	4,499,126	2, 4, 7, 9, 11	5	0	Roanoke	104	110,593	5, 9	2	—	
Cincinnati	16	789,309	2, 4, 7	3	—	Rochester	28	411,970	2, 6, 11	3	—	
Cleveland	9	1,214,943	4, 7, 9	3	—	Rockford	102	105,259	7	1	1	
Columbia	117	89,555	3	1	—	Sacramento	54	158,999	3, 6, 8, 10	4	—	
Columbus, Ga.	133	92,478	3, 5	1	—	{ Saginaw	77	153,388	2, 9	2	—	
Columbus, Ohio	29	365,796	3, 8, 10	3	—	{ Bay City						
Corpus Christi	121	70,677	3, 6, 8, 10	4	—	St. Joseph	129	86,991	7	1	1	
Dallas	27	376,548	4, 5, 8	2	—	St. Louis	10	1,367,977	4, 6, 7, 9	4	—	
{ Davenport	67	174,995	2, 4, 5, 9	4	—	Salt Lake City	58	204,488	2, 4, 5, 7, 9	5	—	
{ Rock Island						San Antonio	50	319,010	2, 4, 5, 7, 9	5	—	
{ Moline						San Diego	49	256,268	3, 6, 8, 10	4	—	
Dayton	44	271,513	5, 11	2	1	{ San Francisco	7	1,428,525	2, 4, 5, 7, 9, 11	6	—	
Decatur	122	65,764	2	1	1	{ Oakland						
Denver	26	384,372	2, 4, 5, 7, 9	5	—	San Jose	78	129,367	—	0	1	
Des Moines	59	183,973	2, 4, 5, 9	4	—	Savannah	114	117,970	3, 5, 9, 11	4	—	
Detroit	6	2,295,867	3, 8, 10	3	—	{ Scranton	30	629,581	11	1	1	
{ Duluth	72	157,098	3, 6, 8, 10	4	—	{ Wilkes-Barre						
{ Superior												
Durham	139	69,683	4, 7	2	—	Seattle	19	452,639	2, 5, 7, 11	4	—	
El Paso	105	115,801	2, 4, 5, 7	4	—	Shreveport	96	112,225	2, 4, 6, 8	4	—	
Erie	95	134,039	6	1	1	Sioux City	107	87,791	4, 9, 11	3	—	
Evansville, Ind.	93	141,614	2, 11	2	—	South Bend	80	147,022	8	1	1	
{ Fall River	55	272,648	—	0	1	Spokane	71	141,370	2, 4, 5, 7, 9	5	—	
{ New Bedford						Springfield, Ill.	103	89,481	8, 10	2	—	
Flint	64	188,551	—	0	1	{ Springfield, Mass.	32	394,623	3	1	0	
Fort Wayne	81	134,385	2, 4, 7, 9	4	—	{ Holyoke						
Fort Worth	51	207,677	2, 4, 7, 9	3	—	Springfield, Mo.	134	70,514	2, 4, 5, 9	4	—	
Fresno	79	97,504	2, 4, 5, 7	4	—	Springfield, Ohio	125	77,406	—	0	1	
Galveston	131	71,677	9, 11	2	—	Stockton	108	79,337	—	0	1	
Grand Rapids	57	209,873	5, 7	2	1	Syracuse	46	258,352	8, 10	2	—	
Greensboro	130	73,055	2, 10	2	—	Tacoma	74	156,018	4, 9	2	—	
{ Hamilton	110	112,686	—	0	—	{ Tampa	61	209,693	2, 4, 5, 7	4	—	
{ Middletown												
Harrisburg	70	173,367	5	1	0	{ St. Petersburg	116	83,370	6	1	1	
{ Hartford	20	502,193	8, 10	2	0	Terre Haute						
{ New Britain	21	510,397	2, 4, 5, 7	4	—	Toledo	34	341,663	5	1	1	
Houston						92	170,979	9	1	1	Topeka	123
{ Ashland, Ky.	24	455,357	3, 8, 10	3	—	Trenton	60	200,128	6	1	0	
Indianapolis						128	88,003	2, 4, 5, 7	4	—	Tulsa	65
Jackson	66	195,619	2, 4, 6, 8	4	—	{ Utica	68	197,128	6	1	1	
Jacksonville	100	151,781	—	0	1	{ Rome						
Johnstown, Pa.	100	151,781	—	0	1	Waco	138	71,114	3, 6, 9, 11	4	—	
Kalamazoo	112	77,213	3	1	1	Washington	12	907,816	2, 4, 9	3	—	
{ Kansas City, Mo.	17	634,093	2, 4, 5, 9	4	—	Waterbury	85	144,822	—	0	1	
{ Kansas City, Kans.						Waterloo	120	67,050	3, 6	2	—	
Knoxville	87	151,829	2, 4, 8, 11	4	—	Wheeling	82	196,340	—	0	1	
Lancaster	91	132,027	—	0	0**	Wichita	86	127,308	2, 4, 5, 9	4	—	
Lansing	94	110,356	6	1	1	Wilmington	62	188,974	—	0	1	
Lincoln	109	88,191	10	1	—	Winston-Salem	124	109,833	6, 8	2	1	
Little Rock	98	126,724	3, 6, 8, 10	4	—	Worcester	41	306,194	6	1	0	
Los Angeles	3	2,904,596	2, 4, 6, 7, 9, 11	6	—	York	113	92,627	—	0	1	
Louisville	33	434,408	6, 9	2	—	Youngstown	36	372,428	6	1	1	
{ Lowell	45	334,969	—	0	1	* I community station may also be available in this city if a showing is made that such assignment would not make impossible the assignment of a station to another city which has a reasonable probability of a station being located there.						
{ Lawrence						** Assigning a station to Lancaster would require deletion of station from either Reading, York, Easton, Pa., or Wilmington, Del. Moreover, such a station in Lancaster would be severely limited by interference.						
{ Haverhill	137	74,830	4, 7, 10	3	—							
Macon	101	78,349	3	1	1							
Manchester	118	81,932	—	0	1							

ADVERTISING

STATION ACTIVITY

While television is looking to advertise in the long run to foot the bills and to pay cash dividends for the many years of experimentation that has already gone into developing the medium, there certainly are no signs of selling television "down the river" at this point. Although all three New York stations have signified their willingness to telecast sponsored programs, all of them have qualified their offers with safeguards which they believe are important if television is to be saved from the "abuses of radio."

Preferences of the viewing audience and their reactions are prime guides in all policies. In some form or another all programming and commercial formats are subject to station approval and must tie in with stations' ideas of what makes good video. Physical limitations are another factor which limit wide-scale selling of television time. Station interest in developing their own ideas on tele techniques takes precedence over revenue when a choice must be made. Briefly, here are policies which govern the sale of time on the three operating stations in New York.

American Broadcasting Company

ABC's policy for sale of commercial time, for its shows on DuMont and G-E, is based on two theories: 1. Promotion and publicity; 2. Experimental use now, for later on.

But some hard and fast rules on the handling of commercials have been laid down by Paul Mowrey, television director. First step is a general meeting of the client, or someone who knows the story of the product inside out; the advertising manager of the sponsor; the account executive of the agency; the radio producer of the

radio show, and a representative of the television department (usually the producer). Unless all these people attend the conference, ABC will refuse to do the commercial. Their stand is that radio people know nothing about visual commercials, the agency doesn't know the story about the product as well as the people who thought it up, and it is only through an interchange of ideas that a good audio-video commercial can be created.

Columbia Broadcasting System

While WCBW has not set rates for air time, as such, a charge of \$150 an hour is made for major studio use. This includes all technical facilities and personnel. Also close co-operation from the CBS staff in working out program formats, commercial techniques, and other problems analogous to television.

Although CBS extended agencies and advertisers an "Invitation to Experimental Commercial Television" in July, 1945, the network's basic attitude is that it will not broadcast anything which, in its opinion, will create a negative attitude on the part of the television audience. Regardless of how effective a program may be commercially, CBS believes that from a long range point of view, it must be guided by the preferences of video viewers. Interesting is CBS' method for testing programs. In borderline cases where it differs from the potential advertiser, a closed circuit show is arranged. Transmission in these instances is confined to the studio receivers only. It does not go out on the air. Thus the program is presented before an audience panel whose reaction serves to guide a wise decision.

Station has established a definite policy on station breaks, limiting them to 20 seconds. Inasmuch as there are

only eight-a-week available, buyers of these spots are held to a maximum of four-a-week in order to prevent a "monopoly." Contracts are limited to 13 weeks.

George Moskovics, WCBW-CBS Commercial Manager, feels that commercial techniques require as much experimentation as programming—in some respects, more so. Too few advertisers take advantage of the full opportunities television offers now and too many commercials are merely translations from other media without fully utilizing the advantages of a visual medium. One of the most important things television offers is the ability to demonstrate products in use. Too few advertisers do it; too many just put on a plug.

Amusing is Mr. Moscovics' observation that even the advertisers who are pessimistic on the future of television are not willing to gamble on it being unsuccessful. They're beginning to feel they must spend a little money to find out about it—just in case.

Du Mont

With DuMont off the air now and hamstrung temporarily by new FCC allocations, final details on their policy toward commercial programs have not been completely worked out. However certain general policies will hold true no matter what rate is set for air time. Phil Fuhrmann, sales manager of WABD is firm in his stand that television must be guarded against the advertising abuses that are so rampant in radio. Therefore definite safeguards will be incorporated into WABD's commercial policies in order to maintain a check on both programming and commercial formats. Here, too, station breaks will be limited to 30 seconds, with 20 seconds allowed for a commercial.

National Broadcasting Company

There's a lot of talk and plenty of plans being made at NBC, but the interest that's being generated among agencies and their advertisers hasn't reached the dotted line stage yet.

According to Reynold Kraft, NBC television sales manager, there are many internal factors which limit WNBT's full scale entry into sponsored television. With the terrific handicap imposed by inadequate facilities, the lack of rehearsal studios, limited equipment and space, the number of programs they can handle and the types of productions are necessarily limited.

Recently their television staff built a program to be offered for commercial sponsorship. Although no definite commitments have been made, a lot of advertising interest has been shown. Following the popular quiz format, the program, "TeleTruth", is a kid's quiz show, which invites the viewing audience to send in questions to stump the youthful experts. Good audience response has been indicated by the number of questions received. Plans are now underway to build another short program for advertising sale, which will probably take the place of one of the film spots now on WNBT's program schedule.

Their film studio is free of the bottleneck which besets the "live" end of their operations and where a client has prepared a special television film of eight to ten minutes, it's possible that they could handle it. To date, there have been more calls for time signals than WNBT has spots available.

NBC has set aside Sunday night for experimentation and development of their own television techniques. These elaborate programs have run the production gamut from operatic adaptations, such as "Pagliacci" to Broadway hits like "Another Language". Because of the many challenges and problems presented in translating this kind of entertainment into television, these Sunday night shows have made good "guinea pigs".

But, in addition to their "learn through doing" philosophy, they believe these programs will be their real promotional "show case" of what can be accomplished in television. No effort has been made to offer these shows for commercial sponsorship. For one thing, they are expensive to produce — and furthermore, NBC intends to continue calling all the sig-

nals. However, if an advertiser was interested enough and willing to follow along and learn with them, undoubtedly some arrangements could be worked out. But NBC is primarily interested in "learning" on Sunday night.

While plans for expansion are still in the "undercover" stage, the many new appointments to the television staff indicates that the facilities "bottleneck" will not be a hampering factor for long.

AGENCY ACTIVITY

Advertising agencies who have been experimenting with television report an increasing interest in the medium on the part of their clients. While no names are being mentioned — because no contracts have been definitely signed — predictions are being freely made that 1946 will see a flux of sponsors anxious to get into television on a commercial basis.

N. W. Ayer

Waltham has renewed their time signals over WNBT for a 13 week stint which began on October 5th. They have also picked up 4 spots on DuMont for time signals which will start when WABD goes back on the air.

On the question of time signals, N. W. Ayer has decided to take the stations' challenge as to whether or not a 1 minute program break for service reports is a little heavy on the viewing audience. Figuring that a half minute station break, allowing 20 seconds for a commercial will be the stipulation when operations really get underway, Ayer is going to experiment with a 10 second picture, dissolving into live time for the remaining 10 seconds.

Grey Advertising

Although not active in the programming end of television, Grey has been doing intensive work with video, as shown. This long-range planning and analysis has resulted in some concrete plans for television on a commercial basis. Although not tipping their hand as yet, full announcement of their plans will be made shortly. With Grey's depart-

ment store interests, it seems a safe guess that their new programs will probably tie in with stores and manufacturers.

Mr. Thomas, head of the agency's radio department, believes that films are the most practical method of video entertainment, and that in Hollywood techniques and know-how lays the answer to many of tele's problems. Consciously, or unconsciously, the public is bound to compare what they see on a television screen in their own homes with what they have come to expect from the movie screen. With this attitude, it would also seem safe to guess again that the new Grey shows will utilize film to a large extent.

Ruthrauff & Ryan

Taking advantage of CBS going commercial, Lever Bros. are going to do four one half hour experimental programs over WCBW. Format will include dramatic, variety and sports. Two new series for Lever Bros. also made their debut over WABD, and they will be resumed as soon as the station goes back on the air. (Full details under "Commercial Programs," page 23.

Two other advertisers have been lined up but no definite plans have been formulated as yet, according to Lee Coley, television director of the agency.

Ruthrauff & Ryan, Inc. (Chicago)

Further indications of Ruthrauff & Ryan's policy in television is the recent establishment of a department in their Chicago office.

A half-hour program for the Acrobat Shoe Co., Division of General Shoe Co., Nashville, Tennessee, has been submitted by this agency to WBKB. Commercial technique will be an integrated part of the show with the company's new animated trade-mark "Tumblin' Tim" being featured. Program format which uses a children's fantasy as theme, has been built around "Tumblin' Tim," a fictitious eight-year old acrobat, and will be complete with real circus clown, a capering elephant, an ornery mule and animated special effects.

According to Fran Harris, television director, video plans are progressing rapidly and several other program ideas are being developed at the request of their clients.

J. Walter Thompson

Television activity at this agency has generated a great deal of interest among clients, with many requesting information, surveys, reports, etc. on television's present and future status. In some cases this interest has run high enough to result in suggestions for program formats and commercial techniques. Here again, no commitments have been made as yet and therefore no names are being mentioned. Norman Rosen, television director at the agency, feels however that the increased attention being given to television is rapidly developing into a realization among advertisers that television can be a most potent advertising medium. The agency plans to experiment with both film and live shows in order to determine the best methods of handling different types of programs.

COMMERCIAL PROGRAMS

Atlantic City Beauty Contest

Capitalizing on the wide interest given to the annual Atlantic City Beauty contest, ABC's Paul Mowrey sewed up the contract for television and secured an option on it for next year. Tangee lipstick sponsored the event and offered a \$1,000 scholarship to the runner-up, Miss Tangee, the scholarship to be used for educational purposes, approved by the board.

The newly formed film unit of ABC spent a week in Atlantic City shooting every phase of the show — parade, rehearsals, special breakfast, preliminaries and finals. This mass of film was then carefully edited to a half hour show and shown over WABD and WRGB.

Tangee commercial was handled both on titles and in sequences where Miss America and Miss Tangee were shown applying the sponsor's lipstick. Warwick & Legler is the agency.



ABC's mobile camera unit catches the parade of lovelies at the Atlantic City Beauty Contest. Show, sponsored by Tangee, was telecast over WABD and WRGB. Insert shows commercial, with Miss America applying the sponsor's lipstick.

Esquire Baseball Game

The all-star baseball game, sponsored by Esquire, was also filmed by ABC for television. Here's a case where a very dull baseball game made a very good television show. There was actually only one good inning of baseball and through careful editing and filming, the highlights of the game were interwoven with interesting shots of spectators. The announcement that the game was sponsored by Esquire, combined with the use of Esquire's cover as a means of fading titles in and out, were used to handle the commercial. The agency is Schwimmer & Scott.

E. I. DuPont de Nemours

"How's Your Imagination?" the new commercial television show launched by DuPont over WRGB, was done purely for experimental purposes. In an adaptation of the demonstration technique, L. F. Livingston, manager of the Export Division for DuPont, does a commentary on war-time developments and projects them into the future, inviting the viewing audience to use their imagination as to their peacetime applications.

The whole show, being institutional, stressed DuPont throughout,

but only direct commercial emphasis was given on the title credits shown on cards. BBDO is the agency.

Keds

During the entire football season, "Friday Night Quarterback" will be presented over WNBT by U. S. Rubber to advertise Keds. Films of the best plays in the preceding week's games are shown and Lou Little then diagrams them on a large blackboard. Sports editors appear as guests and pick the games for the next day.

Commercial on the opening program was limited to a title announcement. However in the future they will probably model Keds on youngsters up to high school and college age. In conjunction with their regular sports department, which prepare bulletins on various sports, an announcement offering these pamphlets will also be made.

Lever Bros.

Also nipped in the bud after their first performance, were the two new Lever Bros. series on WABD, also scheduled to be resumed when the station starts telecasting from their new studios. "Winning the Game," a combination of live talent and film,



"Here's How," opener of the new Super Suds program presented over WABD, missed no chance to keep Super Suds in front of the viewers. The scene above was "Here's How — to paper a room," but boxes of the soap are much in evidence throughout program. Agency is William Esty.

New twist to commercials was introduced on the Ben Pulitzer Tie Program, with this talking cockatoo which draws fortune-telling cards from a box. The sandwich board worn by the cockatoo's owner was not shown until the climax of the skit. Loewi-Gamble production on WABD.

will highlight the basic techniques of popular amusements. An exposé of trick gambling techniques was the theme of the first program.

The new Americana series, "Our Native Land" is a sort of travelogue, spiced with interesting regional anecdotes. The first program dealt with the South. This also combines film with a live show.

Particularly good commercial handling was on "Home Town, U.S.A.", a motion picture film about the town of Glens Falls, N. Y. Using the familiar radio tune "Rinso White" combined with the box, the scene shifted to a girl scrubbing on a washboard. With the off-stage voice, instructing her to wash the Rinso way, the girl followed instructions, indicating her acceptance merely by a shrug of the shoulders, or a change of expression which was cleverly done and most effective. At the announcer's bidding, she tosses out the washboard, leaves the clothes soaking and turns on her television set. The program then gets underway. At the end, there's a flash back to the girl. She returns to her wash, registering delight — still by expression — to find the dirt soaked out. "Rinso White" is again used for signing off.

Super Suds

Opening number in the new experimental series of comedy sketches presented by William Esty & Co., for Super Suds (Colgate-Palmolive-Peet Co.), was a highly commercial, and highly entertaining show.

Their radio jingle — "Super Suds, Super Suds, lots more suds with Super Su-u-u-ds" — was their tele theme song. Used at the beginning of the program with a revolving box of the flakes, it was repeated after each sketch, together with a slide showing soap suds — labeled Super Suds, of course. Particularly clever were the cartoons used in connection with a straight commercial after the second sketch.

Interesting background note, which pointed up the chances for multiple sponsorship in television, were the car cards used in the train sequence. Prince Albert tobacco and Camel cigarettes — both William Esty accounts — got the plug here. In the sketch on papering a wall, Trimz got the break, with a full demonstration given on the ease of using it, plus a price quotation for papering a room.

The "Here's How" theme was carried out with a series of sketches —

"Here's How" to get your husband out of bed; to fix an electric cord; to paper a wall; to collect souvenirs (and land in jail); to be a sound effects man; to travel in wartime; to make an introduction — all handled in a light, humorous vein, while using a demonstration technique.

"Here's How" to wash a blanket was a good institutional feature for Super Suds. Scene opened with a tearful young wife over the tub confiding her husband's failings to her mother. Interspersed with the comic accusations, were the mother's instructions on washing the blanket — and the use of Super Suds, of course.

The series will be resumed when WABD goes back on the air in December.

Commercial Round-up

At WABD, "The Magic Carpet" sponsored by Alexander Smith Carpet Co., (Anderson, Davis & Platte), used the Alexander Smith floor plans and a brief invitation from Clara Dudley, their stylist, for the viewing audience to send her their problems as a commercial . . . "At Ease," the Ben Pulitzer Creation, Inc. program, keeps their commercial in line with



Use of new plastics and cellulose products for better peacetime living were recently demonstrated by the DuPont Company over WRGB. Larry Livingston, DuPont demonstrator, is illustrating the use of new types of plastic sponges developed during the war. Agency is BBD&O.

Miniature clothing dancing in the breeze spells out the letters R-I-N-S-O on "Wednesdays at Nine Is Lever Brothers' Time" over WABD. The details of the clothing were sketched in pencil and movement was gained by use of invisible controls. Ruthrauff & Ryan is agency.

the comedy type of variety show they present.

AT WBKB, "Telequizzcalls," sponsored by Commonwealth-Edison, has grown popular enough to be a weekly feature. (See TELEVISION, September 1945, for full story on growth of this commercial program.) . . . Marshall Field & Co. showed the latest in fall hat fashions in their "Wednesday Matinee" television show. Glamorous fashion models displayed the latest Lily Dache, John Fredericks and Madame Pauline creations.

AT WNBT, "Wings of Democracy," sponsored by Pan American Airways; "Voice of Firestone Televues," sponsored by Firestone; "The World in Your Home," sponsored by RCA Victor Division, and time signals given by Bulova and Waltham continue to use announcements, slides and film for commercials. . . . The slides used by Gillette for their sponsorship of "Cavalcade of Sports" are being revamped by their agency, Maxon, Inc. . . . Esso sponsorship of important news features, such as Wainwright's tumultuous reception in New York, is featured by announcements, title credit and film.

CURRENT SPONSORS

WBKB (B. & K.), Chicago:

American Gear professional basketball team, experimental educational program in cooperation with the Chicago Board of Education; Commonwealth Edison Co., "Telequizzcalls," "Welcome to the Walkers" and "Cooking by the Dial," direct; Marshall Field & Co., "Wednesday Matinee," variety program, direct.

WRGB (G-E), Schenectady:

E. I. DuPont de Nemours, "How's Your Imagination," through BBD&O, New York, York.

WPTZ (Philco), Philadelphia:

Atlantic Refining Company, weekly football games, through N. W. Ayer & Sons, Inc., New York.

ABC, New York

Tangee, Atlantic City Beauty Contest, through Warwick & Legler; Esquire, all-star baseball game, through Schwimmer & Scott.

WNBT (NBC), New York:

Botany Worsted Mills, Passaic, N. J., animated weather reports through Alfred J. Silberstein, Inc., N. Y.; Bulova Watch

Co., N. Y., time signals through the Biow Co., N. Y.; Firestone Tire & Rubber Co., Akron, "Voice of Firestone-Televues," travel films through Sweeney & James Co., Cleveland; Gillette Safety Razor Co., Boston, "The Cavalcade of Sports," remote boxing matches through Maxon, Inc., Detroit; Pan American Airways System, N. Y., "Wings of Democracy," live talent and travel films through J. Walter Thompson Co., N. Y.; RCA Victor Division of RCA, N. Y., "The World in Your Home," film program through J. Walter Thompson Co., N. Y.; U. S. Rubber Co., Keds, live and film "Friday Night Quarterback" through Campbell-Ewald Co., New York; Waltham Watch Co., Waltham, Mass., film and time through N. W. Ayer & Son, Inc., N. Y.

WABD (DuMont), New York:

"At Ease," produced for Ben Pulitzer Ties by Loewi-Gamble Productions; "Fashions Coming and Becoming," produced for the Sanforized Division of Cluett-Peabody & Co., by Young & Rubicam; "Here's How," produced for the Super Suds Division of Colgate-Palmolive-Peet by William Esty & Co.; "The Magazine of the Air," produced by the United States Rubber Company and its agency Campbell-Ewald; "The Magic Carpet," produced for Alexander Smith Carpet Company by Anderson, Davis & Platte; "Thanks for Looking," produced for the Goodyear Tire and Rubber Company by Young & Rubicam, and "Wednesdays at Nine Is Lever Brothers Time," produced for Lever Brothers by Ruthrauff & Ryan.

N. W. AYER DEVELOPS FOOTBALL COMMERCIAL

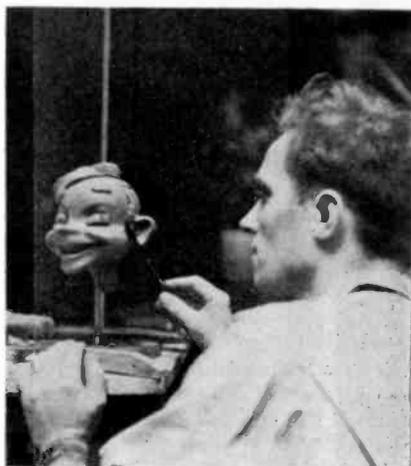
Sparky Atlantic — a friendly kind of a fellow who wants to be helpful and, despite his pert expression, is definitely not a wise guy—is the new host at the telecasts of the University of Pennsylvania football games over WPTZ. Sparky is the newly born trademark of the Atlantic Refining Company now beginning their fifth year of sponsoring televised football games.

Here's how Sparky came into being. At a meeting last June, Don McClure, television director for N. W.

Ayer, agency for Atlantic, and the television advisory board, considered various commercial possibilities and finally decided upon a puppet character. Dick Rose of the Art Department designed the puppet, a presentation was made and Sparky was officially adopted. Bil Baird, world famous puppeteer, was contacted and worked together with Rose in giving Sparky a telegenic personality. Sparky's growth, from the time of his conception until he comes to puppet life, is graphically shown in the accompanying pictures.

Next problem was to match a voice to Sparky's appearance — for by this

time Sparky was beginning to be considered a real person! To synchronize a voice with the lip motions of a puppet requires a definite knack, and two new devices were worked out to realistically synchronize the recorded lip sink with the wild sound (off stage). In normal conversation, people just talk, letting their lips form the sounds. A puppet's mouth goes straight up and down — almost a snap-like process. William Kean was selected to be Sparky's voice. It was necessary for him to slow down his speech and open his mouth, straight up and down as Sparky does, in order to get the right effect.



Bil Baird, world famous puppeteer, models Sparky's head in clay. From this a plaster cast is made of the head.



Plastic wood is then put into the cast of the model, and baked through a series of highly technical processes.



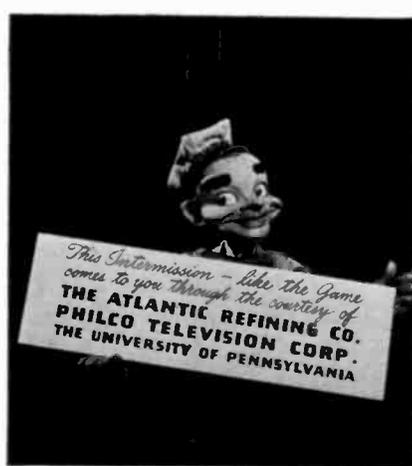
Sparky's creator works from a sketch of a filling station operator to get the right feeling and character for him.



Here's Sparky and his "voice," William Kean, working together on synchronizing the vocalization effects.



Sparky moves around quite a bit during the commercials, but here he poses in one of the locales used in film.



Here Sparky does something most unusual — he invites the viewing audience to leave the set for awhile.

Four complete game sets were filmed to service the eight games on the schedule. Aside from the economy angle, it was felt that the commercials were sufficiently amusing and interesting to repeat for a second time.

Sparky opens the telecast by greeting the viewers, and announcing the teams who are playing. Then he leads into the opening commercial. From there, Bill Stanton, sports announcer, picks it up on the field as the football game starts.

At quarter time a quickie commercial is made — the regular one given over AM radio. Previously they used a cartoon slide at the quarters but decided that it was too static for television.

Sparky comes back at the half with another commercial. But because a football game runs 2 to 3 hours, and the half is a time for the spectators as well as the teams to relax, a novel touch is added here. When Sparky finishes with the Atlantic commercial, he says something like "Well folks, nothing much happening here — we'll just pick up some band music and I'll blow this whistle when it's time for the game to start". To stress this break, Sparky holds up a sign "This intermission — like the game comes to you through the courtesy of the Atlantic Refining Co., Philco Television Corp., and the University of Pennsylvania."

When the cue is given from the field, Sparky blows the whistle which is the viewers signal to return to their sets, and Bob Stanton takes over for the second half. Before the recap by the announcer at the end of the game, the studio cuts in while Sparky comments on the game and gives another commercial. Then back to the field for the recap of the game by the announcer who, when he finishes, asks Sparky if he has anything else to say. Sparky comes back again for an announcement of next week's game and an invitation to the viewing audience to tune in.

The opening commercial lasts about 1½ minutes; at half time about 2½ to 3 minutes, with the end commercial running about 1 to 1½ minutes.

FASHION ADVERTISING

"Television in Fashions and Home Furnishings" draw a tremendous crowd to the New York Fashion Group Luncheon where Worthington Miner, manager of WCBW, spoke to

the group on the potentialities of video in these fields. Defining fashion as "Good taste in endless variety," Mr. Miner stated that there was an almost endless market to influence in habits of good taste. Minimizing the effect of the stage by stating the small percentage of the population who have ever seen legitimate theatre presentations, and deploring the movie habit of showing every stenographer dressed in Adrian creations, sprawling on custom made furniture, Mr. Miner projected television as the first visual medium which could directly influence buying preferences.

In order to deflate any optimism, the limitations of video, both as to technical equipment and the size of present audiences were explained. Discussing television as an advertising force in these fields, Mr. Miner contended that until color television was available, full justice could not be done to the merchandise shown, as color is one of the main stimuli to buying.

Commercial techniques for fashion programs were discussed, with Mr. Miner stating his preference for the continual subtle approach over the direct advertising plug. (See "Mademoiselle Tries Out Television," page 11, for a full discussion of this type of advertising.)

TELE TRAINED MODELS

In addition to training their models to be video-genic as a service to television-minded agencies and retail organizations, the Harry Conover Agency is "thinking about" making up a few package shows of their own. Advertising agencies have been sounded out and the organization has their eye on several writers and directors who could be quickly incorporated into a permanent staff.

AD COURSES

Three lectures on television will be included in the Radio and Television Clinic being given by the Advertising Club in their 22nd annual Advertising and Selling Course. Ralph Austrian, vice-president of RKO Television, Peggy Mayer, writer and Joseph Moran of Young & Rubicam will be the lecturers.

TELE JOBS

Under the heading, "Jobs and Futures in Television", the September issue of *Mademoiselle* explored the various jobs possibilities in television for women. The article should be helpful in giving women readers a better knowledge of the many possibilities inherent in television and an understanding of its problems, even if they are not particularly interested in entering the field.

Stressing the fact that WABD, WBKB and WRGB use women announcers mainly, *Mademoiselle* foresees a new field in television where "pulchritude and sex appeal" that can be seen will break down the barriers that existed in radio against women in these posts. In food programs, particularly, they see a big field for women, for it is the females of the species who do the buying and the cooking, etc. Feminine chances in technical and maintenance work are slim with strong resistance seen against hiring women for these jobs. The fact that it has been done during the war is discounted as an emergency measure, bound to be dropped as more men are released from the armed forces. Practical tips on acting, script writing and production, as well as suggestions for training, are also given.

VIDEO COURSES

Noran E. Kersta, manager of the NBC Television Department, is conducting the second season of the joint NBC-Columbia University Extension Division course on "Television Production Problems." First course in television to be counted for credit toward a degree by a recognized university, the NBC class will consist of 15 lectures by members of the television department discussing various aspects of production problems.

CBS video director Rudolf Bretz has inaugurated a new study at the C. C. N. Y. Institute of Film Techniques, "An Informal Course in Television." Through lectures, demonstrations, and observation in Columbia's television studio, the course will cover the groundwork in technique and theory of television production. Students may also take part in actual television production at WCBW during the afternoon lab period each week. — M. G.



Long Shots and Close Ups

A Regular Feature on Films by H. G. CHRISTENSEN

PRODUCTION FACTORS

HEAR that familiar ring? It's the phone. We pick it up and listen, just listen, to something like this.

"Hello, is this the Shoe String Motion-Picture Company? Well this is so-and-so—of Blank Company. Now listen, I've gotta get into a budget meeting in a few minutes and talk about a picture we've got in mind. Well look, brielly here's what we want. We wanta make a picture to show you how our product is made, tested and used and a little about the history of the company and what we did in the War in — Oh, about ten or fifteen minutes. You do that sort of thing, don'tcha? Swell — well here's *all the dope*. There'll be a few minutes of shooting in our Lab, some shots in the president's office, a little speech, you know. Then some shots around the factory, a few in our retail salesroom and maybe some studio shots showing a housewife using the stuff. Y'see it has a dozen different uses, but we don't need to show all of 'em. Oh yes, I think we'll want to show some animated maps or something like that to show where our dealers' service stations are — and I guess that's about it.

"About how long will that run and how much will it cost? Of course I don't need an exact figure to the cent, just one close enough so's we can figure our budget. I'll hold the phone or do you wanta call me back in five minutes?"

Yes sir, *there's ALL the dope*. Of course Mr. Producer can always play safe, and if he's been in business long enough he generally does. Sometimes he gently hints that he needs a little information like where the factory is, etc., which irks Mr. So-and-So no end. Hasn't he just given him all the dope, *the dope*? Other-times Mr. Producer may just sigh and say "Well, it could cost any-

where from ten to thirty thousand dollars, depending on . . ."

Whereupon, Mr. So-and-So hangs up muttering to himself, "Motion picture producers must be nuts or somethin'." At times I'm inclined to agree with him. A guy almost has to be, to become one.

But seriously, any producer who would give a cost figure on a production based on the foregoing information, would be "nuts." And producers get requests like this right along, not from experienced buyers and users, but from prospective clients with little or no knowledge of what is involved in the planning and production of a motion picture. They cannot understand why cost estimates can't be handed out "on the spot" as in the case of most manufactured products, where all you have to know is "what amount" to get the answer to "how much". Nor can they understand why there is such a variation in production costs from competing producers on the same picture.

Estimates Vary

To go even further into this realm of confusion, one producer recently handed a script to each of his three directors and asked them to figure the production budget they would want if they were assigned to direct it. They varied \$15,000 in their costs. One wanted around \$35,000; another about \$42,000 and the third, a mere \$50,000. The answer? Simpler than you think! No two producers, no two directors interpret a script the same way. It's impossible, and Brother if you don't think this difference in interpretation makes a difference in costs, read on while we try to keep this yarn from getting snarled.

Remember, and this is important. *Every picture has to be created!* Never have any two been written or produced alike. Consequently, the production costs can never be the same on any two pictures. Therefore, any producer who conjures up a cost estimate for a particular picture without knowing all the factors involved is heading for trouble. Not only for himself, but for his prospect, by placing him in the position of choosing between a mediocre picture because the budget was too small — or paying through the nose, if production has begun, to get the quality he wanted.

Trade Terms

But before going any further, let's clear up some of the terms used in motion pictures.

1. A *reel* is one thousand feet of 35 millimeter film.
2. The running or screen time of one reel is eleven minutes.
3. A reel of 16 millimeter film is four hundred feet.
4. The running or screen time is also eleven minutes.
5. Therefore, one foot of 16 MM equals two and one half feet of 35 MM film.
6. 16 MM film is about half the width of 35 MM, while the actual size of the picture on the film itself is one fourth the size of 35 MM. To be sure of quality it is best to shoot on 35 MM and make 16 MM reduction prints.

7. If you see a 16 MM print projected, don't think the picture was necessarily *shot* on 16 MM. Nine out of ten black and white 16 MM pictures you see were shot on 35 MM and reduced in printing to the 16 MM size. This reduces print costs and increases the showing possibilities of the picture through the use of portable 16 MM sound projectors. Another advantage of 16 MM prints is that a picture as long as four reels, 1600 ft. or 44 minutes running time, can be put on one large reel — thereby permitting uninterrupted showing on one machine. In theatres, which use 35 MM projectors, the limit is 2000 feet per reel, or 22 minutes, necessitating the use of two machines and changeovers every two reels. Portable 35 MM projectors only handle 1000 foot reels, unless especially built for the larger capacity reels.
8. All Kodachrome pictures are shot on 16 MM size.
9. The average feature is from six to seven reels of 35 MM film.

Production Problems

And now, let's follow a picture through all its phases of production from the time it becomes "a gleam in its author's eye" until a new picture is "born to the screen" for all to see, hear and judge. And there are cases on record of where this has taken more than nine months. But, only by doing this and realizing "the labor pains" necessary, can we get some idea of what a producer must know of his own business and yours, to answer intelligently that question "how much?"

Before anything else happens, the idea for a picture, regardless of who has it, should be turned over to a top-notch script writer for translation into a motion picture outline or synopsis of treatment.

A few words about script writers. Never look for a bargain. Good ones come high. Remember this: a good script doesn't necessarily result in a good picture, for the director may not have been as good as the writer. But you can bet your budget that a

poor script always means a poor picture! When your outline is written to the satisfaction of all concerned, the producer can give you an idea of cost. I say idea of cost, because at this stage of the game you will be given a "range figure" which will provide a leeway of 20% to 25%. In other words, a minimum and maximum figure. And if it's too high, now is the time to make whatever changes are necessary to bring it down to where you want it.

Assuming the range figure to be satisfactory, the "shooting script" is then written. When this is finally approved for production, then and only then can an accurate cost be determined. I use the word "accurate" advisedly for the simple reason that even now, with all the production factors at hand, anyone experienced in the business who can estimate costs within a 5% to 10% margin of error is, in my humble opinion, a genius. That is probably why the word "contingencies" was invented. More about that later. To arrive at this cost, the script is broken down into the major production classifications which apply to every picture regardless of its length or probable cost. Here they are with some comments on their importance to a picture and flexibility of costs.

1. **SCRIPT:** The first requisite, and a most important one, is a good script writer. If your producer hasn't got one, or more, change producers before it's too late. Don't think because you're making a minute movie you don't need as good a writer as you would on a five-reeler. If anything you need a better one. Remember the guy who apologized for the length of a letter he'd written, by saying he didn't have time to write a short one? That also goes for scripts. The costs of a script is flexible, depending on the amount of time, research and contact necessary, to say nothing of said writer's salary. This naturally varies with ability but a high salary is not *always* an indication of how good the script is going to be.

2. **DIRECTOR:** Everything said about the writer goes for the director — in spades. His is the responsibility for the final result, providing of course he has that good script we're talking about. His interpretation, planning and direction can make or break a picture, as well as the producer. His

cost will vary, but this is not a place to economize.

3. **CAST:** Sounds obvious but it's worth repeating — actors are about the most important thing to a picture. Here too is where attempted economy can lead to ruin. They come at all prices from \$25.00 a day up to four figures for "name" talent! It pays to get the best in proven ability and performance. There's a place for ham but it shouldn't be in your picture. The number of people in the cast, their salaries and the length of time you need them all have a great bearing on costs.

4. **SETS:** When sets are necessary — living rooms, offices, salesrooms, kitchens, and the like — they present a very flexible cost factor. How many? What size? How elaborate? What period? Can they be stock sets or must they be especially designed and built? The answers to these questions effect costs in a major way.

5. **LOCATIONS:** Locations may be either interiors (such as factories, offices, salesrooms, service stations, etc.) or exteriors, which of course could be anything and anywhere. As starters, here are a few more questions — and just a few, remember. How many scenes? Where located? What are transportation facilities? What about hotel accommodations for crew? How many men are needed in crew? How many shooting days required? How much lighting equipment? Are scenes silent or sound? All these factors must be known — and more — before costs can be figured.

6. **STUDIO:** Going on with the quiz here are some more questions: Any studio shots? How many scenes? Sound or silent? How large a crew at union scale? How many sets to be lit? How many days required? How many actors involved? Merely part of the information your producer has to have to answer "How much?"

7. **PROPERTIES:** Does the client furnish them? If so, what part? What does the studio have to get? Are they obtainable locally or must they be bought? Must they be in a certain period, ultra modern, or just old fashioned? Do some have to be made? Props can cost a little or a lot — it all depends on what they are.

8. **WARDROBE:** The questions posed for props can be repeated for costumes — plus the fact that they must fit the wearer, photograph well and if in period fashion must be authentic to the last detail. Costs go up or down accordingly.

9. **SOUND EFFECTS:** Does the picture call for sound effects? What kind? Can they be obtained already recorded or do they have to be made? If so, where? Will it require travel for a sound crew? If so, your costs get a necessary boost.

10. **NARRATION:** Is the picture a “voice-over” job? If so, who does the narration — a top-flight name in the business at a healthy fee, or just a good announcer, with a good voice still hoping to get screen credit? Their prices vary — and how!

11. **MUSIC:** Here’s an item that can vary plenty in costs. You can have library music, free from royalty payments for as low as a dollar a foot if you’re lucky enough to find something that fits the theme of the picture. Or you can have special orchestrations or scores written, arranged and recorded by a symphony orchestra, if your budget will stand the freight. Flexible costs? I’ll say so!

12. **RAW STOCK:** This is merely the film on which the picture is shot and from which prints are made. The cost of the film itself is so much per foot, so there’s no flexibility there. But, and it’s a big but, the amount the director uses is very flexible. The usual ratio on commercial pictures is 4 or 5 to one, meaning five thousand feet of negative may be used in shooting a 1000 foot picture. How-

ever, sad to relate, some directors never heard of “five to one” except at a race track. Consequently costs can start skyward here.

It should be obvious that the more film a director uses, results in more time and labor for the entire production crew and actors. Inasmuch as this time and labor constitutes by far the greatest part of production costs, you can see the necessity of keeping this ratio of N. G. (no good) takes down to as reasonable a figure as possible.

13. **LABORATORY:** Well, the laboratory develops and prints the film after it’s shot. The more shot, the more developed, and costs develop accordingly.

14. **ANIMATION:** Here is where you can really spend it if you’re so inclined. Almost anything can be animated; from a straight line connecting two points on a map to showing that the light in the refrigerator actually does go out when the door is closed. The cost of animation can run all the way from \$3.00 a foot to \$50.00 and more.

15. **PROCESS PHOTOGRAPHY:** Under this heading comes miniatures, slow motion, stop-motion, micro-photography, optical effects, rear projection, background, double exposures, stunts, to name but a few. Wonders can be accomplished by their use, but it takes plenty of preparation, time and money.

16. **LIBRARY:** “Use a stock shot” is one of the standbys of most script writers. What some of them would do if they couldn’t specify “stock shots,” Heaven only knows. Sure, lots of times they’re necessary and add a

lot to a picture, if they can be *had*—and I might add in some cases, if they can be *seen*! Most of them have been “duped” so many times that when you get them they’re only a shadow of their former negatives. Usually they are used to cut costs, and hardly ever increase them. Avoid them whenever you can, if you’re a stickler for quality.

17. **CUTTING AND EDITING:** The cutter—or “film editor,” if we’re high toned—is as important to the final picture as the writer is to the script. Here again it pays big dividends to have the best. The costs of his part of the job depend on his salary rate, length of time required and the number of assistants needed.

18. **CONTINGENCIES:** Here is where the smart producer tucked away that ten per cent margin of error we talked about earlier. Not only does he have to for his own protection but often it’s not enough. It has to cover, among other things, weather conditions on location, possible delays due to sickness in the cast, failures of equipment, transportation, electricity, strikes, accidents. And believe me when I tell you some of the unforeseen things that can happen to a picture in production are unbelievable. If the miracle happens and he doesn’t need any of his contingency fund, you’ll find he’ll be glad to refund it to you if he’s a reputable producer. But be there, it must.

THESE are the 18 major factors any producer must know before he can give you an estimate on a picture. There are still others but those briefly outlined above should give you some idea why estimates can’t be handed out on the spot.

***I**n future articles these various production items can be discussed individually and in detail if you readers so desire. However, inasmuch as this department is here for your information and convenience, I would greatly appreciate hearing just what subject you would like to read about. Send in your questions and if, after over thirty years on the production front, I don't know the answers, believe me I'll get them for you and thank you for the opportunity, because I'll be learning something too.*



One Man's Reflections

A Regular Feature by DR. ALFRED N. GOLDSMITH

Whither Television?

CERTAIN recently disclosed engineering methods and equipment, developed during the war period, strengthen the viewpoint expressed relative to television-broadcasting allocations in an earlier discussion in these columns. They reinforce the conviction that present-day commercial and practical television should effectively be concentrated below 300 megacycles, and that the highly evolved television of the future should be centered above 5000 megacycles. Other considerations additionally reinforce the opinion that the number of channels presently assigned to commercial television broadcasting should speedily be increased to enable a healthy and normal expansion of that art.

It is well known that standard broadcasting is conducted commercially on 105 channels between 550 and 1500 kilocycles, though not all of these channels are available for use in the United States. Frequency-modulation broadcasting will enjoy eighty channels between 88 and 104 megacycles, and most of these will be available for use in this country. In sharp contrast, commercial television broadcasting is crowded into thirteen channels scattered in groups between 44 and 216 megacycles — a channel arrangement which obviously is not preferred from the engineering or operating viewpoint. And even experimental television broadcasting, between 480 and 920 megacycles would (with 10-megacycle channels and some subtractions from the available band) offer about forty television channels. It is significant that the Radio Technical Planning Board proposed between twenty-five and thirty channels as a compromise minimum — or about twice as many as have actually been assigned to commercial television.

For convenience of reference three types of television will be described and compared. They are as follows:

Type A Television

This type of television would occupy some thirty channels, each 6 megacycles wide located between 44 and 300 megacycles and, as nearly as possible, in large and adjacent blocks of channels. These channels would therefore occupy 180 megacycles out of the available 256 megacycles between 44 and 300 megacycles, leaving nearly 80 megacycles to be assigned to other services if necessary. It would seem that 150 million people in the United States might well be entitled to such a frequency assignment for their entertainment and instruction by the greatest medium of mass communication so far discovered.

Type A television would produce black-and-white pictures of entirely adequate fidelity, and of thoroughly satisfactory entertainment value. It is a type of television which is here. It can give immediate employment to tens of thousands; it can stimulate the employment of millions; and it can bring enjoyment into the homes of tens of millions. It may fairly be called "practical present-day television." It will provide sufficient channels to enable some degree of competition and to furnish service over the major portion of the United States.

It must be pointed out that the antennas are about ten feet long and that, when directional as required, are bulky. Further, this type of antenna will present problems in multiple-apartment dwellings and may compel the use of centralized-television service by the landlord on a rental basis. But there are no outstanding

technical problems in all this.

In summary, Type A television deserves vigorous encouragement by the public, the government, and the radio industry. It offers great opportunities for public entertainment and instruction for large-scale employment — vital factors under existing conditions.

Type B Television

This sort of television, at present on an experimental basis, is located between 480 and 920 megacycles. It can offer about 40 10-megacycle channels (or only about 20 20-megacycle channels). If the 10-megacycle channels are used in order to get a fairly adequate number of channels under present-day conditions, Type B television would offer color pictures of about the same detail as the black-and-white pictures of existing Type A television.

In offering radio engineers the opportunity to study experimentally the 480-920 megacycle band in its television capabilities, the Commission is furthering a clear understanding of the capabilities of this band. By such experimentation, engineers will learn more about the circuits, equipment, operating procedures, and necessary standards for any possible television in the 480-920-megacycle frequencies.

It is interesting, however, to consider whether this band of frequencies can ever be truly desirable for future commercial television operation, and particularly in the field of high-fidelity color television — a field toward which the television art should progressively advance over the years.

Equipment in the 480-920-megacycle domain has not been developed. Large-scale production of commercial color-television transmitters and receivers is clearly a long way off, for standards must be set, field tests carried out, and all defects of operation ironed out before commercial operation can be considered in any band. Network facilities are not yet available for 10-megacycle channel transmission.

So far as antenna structures are concerned, these will still be fairly bulky in the 480-920-megacycle band, being several feet in size. It would accordingly be impracticable, so far as we now know, for each tenant in a multiple-apartment dwelling to have an antenna which was directional for

Continued on page 34

EQUIPMENT

COAXIAL CABLE PROGRESS

Of particular interest to the television industry is the announcement by the A. T. & T. that they will open their coaxial cables between New York and Washington for experimental television programs the first of the year.

Before the end of January one coaxial tube will be equipped to transmit television between Washington and New York so that, if desired, programs originating in the nation's capital can be carried to television broadcasting stations here and broadcast by them to the New York area.

By the spring of 1946, A. T. & T. expects to have a second coaxial tube ready for experimental service between Washington and New York. Later in the year, it is hoped that arrangements can be completed to connect Philadelphia into the network, so that programs originating in any of the three cities can be transmitted over coaxial cable to both of the others.

Discussions are now in progress among the various net works and other telecasters to work out an equitable procedure for the sharing of these channels among those interested.

The period of experimental use of the coaxial facilities will be handled on a non-commercial basis. This is in conformity with the requirement of the Federal Communications Commission that "unless and until further authorization is granted . . . no charges shall be made."

Contrary to other reports in the trade there has been no telecaster committee set up with the networks by A. T. & T. The Telephone Company has its own television committee which will handle all matters pertaining to this experimental project, and which will work with all interested parties.

There is a strong possibility that the Army-Navy game in December in Philadelphia might be piped into the Philadelphia, New York circuit.

VIDEO FILMING

A development in equipment which may revolutionize television programming is a method of filming a video show right off the face of a special cathode ray tube. Both DuMont and RCA have patent claims on this idea.

The much feared high costs of television programming can now be split in many ways, for obviously by this system it is possible to make a film of the original show and ship prints of it, much the same way film distribution is made, to stations throughout the country.

This method undoubtedly will be important not only from an economic angle but as a great aid at this stage in programming experimentation. Much progress can be made when production staffs get the chance to analyze a television show which, in the past, was out of existence once it was off the air.

Another application of this idea, which was previously reported in TELEVISION, is a system for theatre television. As the television picture is filmed, it is automatically developed and dried and in only 1½ minutes is ready for use in the regular film projector. This might easily be the answer to the many obstacles of large screen television as the main problem of securing sufficient brilliance in large screen television, is completely solved by the use of this method. Important developments in this end will probably emanate from Paramount Pictures who have been experimenting in cooperation with DuMont and Eastman Kodak for many years.

STUDIO BLUEPRINTS

The perfectionist's attitude — "If it can't be done perfectly, don't do it" — has hampered and hamstrung progress while contributing next to nothing. Someone has to make a start and the attitude "Let's wait — don't do it ourselves, it might be wrong", gets no one exactly no where!

Lt. Col. James L. Caddigan of Boston, Mass. seems not to be hampered with such an attitude. His proposals, though in no way perfect, present a complete administrative and operational structure for a medium sized television station. While not the exact answer to the whole problem, it is a start. The pictured plans will give an idea of Colonel Caddigan's proposals for the construction of a small television studio, station and theater.

Architects will undoubtedly be able to pick flaws in the plans; technicians will find bugs; everyone in the studio, from the producer to the janitor will find things wrong and suggest improvements; and by just this process will evolve the perfect television plant.

Offhand, these flaws occur to us. The news room is too far from the main studio. The rehearsal hall probably can't double as a studio because the heating plant, generator and other equipment would interfere with the cameras. The tracks and cables of the lighting system seem unnecessarily complicated. The elevator stage, if raised to its maximum, would be higher than the light trolleys. Probably there are many more such bugs.

Our point is that if plans such as these are drawn up, and technicians and sales personnel and architects and administrators can sweat over them, picking flaws and making suggestions, the perfect studio will be evolved. That's why we'll continue to present ideas and proposals along these lines. (See sketch, page 33.)

PATENTS

Color Tele

Three-dimensional, full-color television is envisioned in two patents recently awarded by the United States Patent Office in Richmond.

Alfred N. Goldsmith, of New York City, won No. 2,384,260 on September 4 on a hand-held device to provide stereoscopic, color television. No. 2,384,259 was granted on the same

date to Edwin Jay Quinby, Key West, Fla., on a similar instrument. The former patent was contained within an application filed Nov. 27, 1941, divided and resubmitted on Sept. 21, 1944; seven claims were allowed. The latter patent, on which two claims were granted, was applied for on July 9, 1942. Both patents were assigned to Radio Corporation of America.

The Goldsmith television system operates in general along conventional lines, but instead of relying upon a motor and scanning disk adjacent to the light reproducing source to produce color effects, it utilizes a hand-held viewing instrument which contains its own disk and a small electric motor.

The device is adapted to operate in synchronism with the television receiving equipment. For a three-dimensional effect in black and white, a disk may be used having only alternate opaque and light-transmitting sectors. Revolving rapidly, this disk conveys a stereoscopic impression.

For colored stereoscopic effects, a disk is used of alternate sectors which are serially colored in accordance with a predetermined color sequence, such as blue-green-red. Intermediary sectors in the disk are opaque, and the number and position of both sectors is so chosen that when one eye aperture is in register with a color sector, the other eye aperture is opaque. As the disk is further rotated, the color sector is replaced by the opaque sector, and so on. In any case, the color and stereoscopic scanning regimes at the transmitter and receiver respec-

tively must be identical and synchronous.

The actual sequence in which the device operates, to provide tricolor fusion and stereoscopic fusion in the eye and brain of the observer, goes: Left-eye blue image to the left eye, right-eye blue image to the right eye, left-eye green image to the left, right-eye green to the right, left-eye red to the left, and right-eye red to the right eye.

The Quinby device is particularly adaptable to the Goldsmith system. It comprises a light-weight instrument with a sponge-rubber fitting for the observer's forehead. An electric motor of the type used in Westinghouse clocks operates a disk having red, blue, and green filter segments. Eye apertures are spaced approximately the interpupillary distance apart, and a hand switch is provided on the plastic casing.

In operation, both patents rely upon a system whereby pictures are reproduced by projecting a sequence of black and white images upon a viewing surface, each image of the sequence corresponding to the image taken through a filter which passes only light of one of the primary colors. The light sequence of the filters is so chosen that the additive combination is the equivalent of white light. If the sequence of black and white images is then viewed through a device in which only light of one color is permitted to pass at any instant, and the device is operated in synchronism with the production of the black and white images, the observers appear to

see colored pictures.

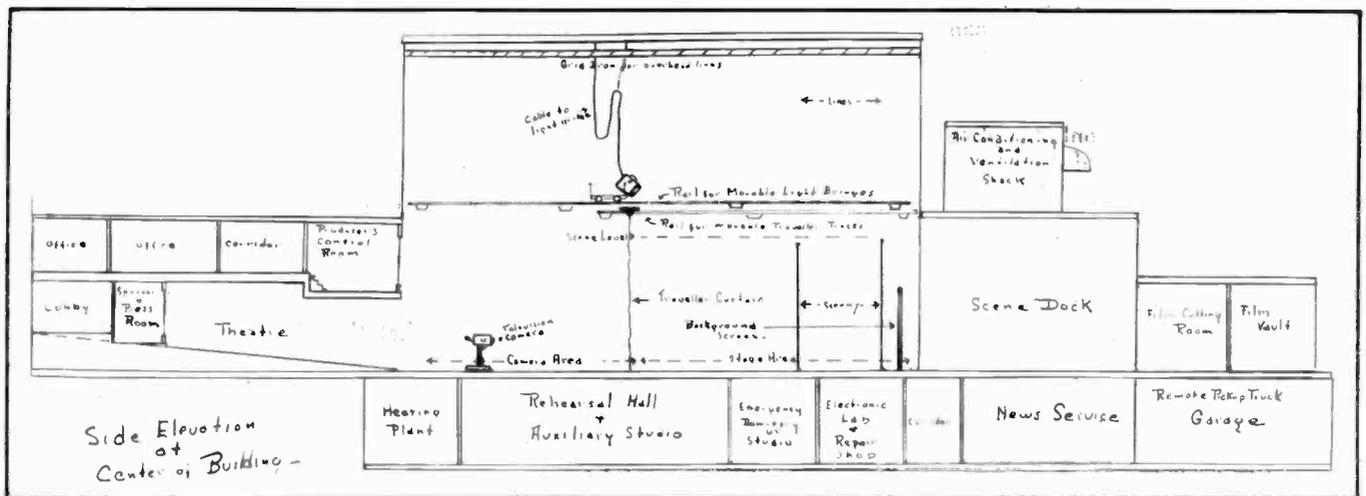
View Finder

George L. Beers, Haddonfield, N. J., received No. 2,384,232 on September 4 on a view finder for television cameras (10 claims allowed, application May 2, 1942, assigned to RCA).

This view finder is designed for use on cameras engaged in direct pick-up in a studio or out-of-doors. It provides not only a view of the scene being televised, but also indicates some of the area immediately outside the picture's boundaries, so that the cameraman may know in advance of "panning" what the camera will pick up. A further refinement indicates when the lens picking up the scene is properly focused.

The patentee comments that television cameras can be stopped down a great deal farther now than in early days of television. Old-type view finders, which work directly from the camera lens, now provide an inaccurate indication of focus for the extended depth of field. His view finder operates as a separate optical system from the familiar television system, whereby light is directed from the scene upon a view finder pickup tube which is associated with an independent amplifier and arranged to convert the variations in light intensity of the scene into electrical impulses which may then be reproduced as a view finder image before the eyes of the operator.

Beers also received No. 2,383,365 on August 21 on a novel arrangement for obtaining a maximum amount of



Copyright by Lt. Col. James L. Caddigan.

useful signal in the output of television pickup equipment under varying light conditions (5 claims allowed, application July 31, 1943, assigned to RCA).

He explains that one of the cameraman's problems lies in adjusting the size of his stop opening to meet varying light conditions while he also is managing other controls of the camera. By fixing the aperture control at the rear of the camera, the problem is eased somewhat; but some indication of relative light intensity must be provided, and suitable devices are complicated and expensive.

To accomplish this joint control, a monitoring control station is set up. A bevel gear adapted to the iris diaphragm is combined with a Selsyn motor system, and the operator of the device is guided by a signal trace appearing in an oscilloscope and by the picture image reproduced on a monitor tube. Thus constant adjustment can be made of the gain control and the diaphragm to obtain the best images, regardless of the light conditions.

Electronic Amplifier

Kurt Schlesinger, West Lafayette, Ind., won No. 2,384,263 on September 4 on an electronic amplifier for handling a wide band of frequencies (14 claims allowed, application May 7, 1943, assigned to RCA).

The patented amplifier is held to have extensive use in television video circuits, since it permits a substantial increase in gain over prior amplifiers, and makes a substantial increase in band width. The amplifier comprises a number of voltage amplifier stages with electronic tubes serving as the coupling elements between successive stages. These coupling tubes are connected as cathode followers and they result in splitting the load capacitances across the voltage amplifier in two parts, so as to leave only the plate-to-ground capacitance of the driver tube as ballast. At the same time, this eliminates the grid-to-ground capacitance of the next amplifier by causing it to reappear across the cathode follower output where it forms a negligible load.

Provision is made in the amplifier for high frequency peaking with readily obtainable values of variable condensers which preferably are connected at one side to the ground. It also provides for low frequency correction and, where necessary, for D. C. coupling between stages.

WHITHER TELEVISION?

each of several stations. This might even be the case for persons living in their own homes.

Considering picture fidelity, antenna convenience, number of available high-quality channels, and a number of other factors, it would seem that Type B television is not free from the disadvantages of Type A television. Further, it cannot offer the advantages of immediate and dependable commercial operation such as can be obtained with Type A television.

In brief, Type B television is properly a long-term experimental project insofar as it has interest to engineers. For smooth commercial operation, on a large scale, and on an economic basis, it would appear that years of additional development will be needed followed by a prolonged period of experimental tests and standardization.

Type C Television

This reasoning naturally leads to what is regarded as the logical step to take at some time in the future. That is, if after a number of years of acceptable Type A television, a new Type C television becomes commercially available, it will be logical to change over to that vastly improved system.

To be more specific, Type C television might be operated, for example, between 5000 and 9000 megacycles, occupying about 100 channels each some 40 megacycles wide. This is an adequate number of channels for a nationwide competitive service. And the color pictures produced by such a system would be of high fidelity (say 700-800 lines). Such a television system might fairly be termed the "television of the future."

Type C television has many major advantages. The antenna problem is at once greatly simplified, since the antenna structures will be metal reflectors or horns which can readily be held in the hand. Such antennas can be mounted on swivel joints and fastened, in an appropriate orientation in each case, on an ordinary pole on the roof. Five or ten of them can readily be mounted on such

(Continued from page 31)

a pole, and their outputs can be carried by appropriate transmission lines or wave guides to the individual receiver. The need for landlord-sponsored central installations thus disappears, and a vast simplification of installation and maintenance results.

Relay systems will similarly operate in a practically static-free series of channels. And it may be possible, if necessary, to utilize frequency-modulation transmission methods.

The highly directional antennas which can conveniently be used for Type C television would minimize ghost images and improve service. The channels assigned to Type C television would be reasonably likely to be usable for many years without change.

Broadly considered, Type C television above 5000 megacycles should prove, after development, to be the individual citizen's "free television system." It should be capable of serving the entire country and of fostering healthy competition between television broadcasters.

Summing It Up...

To summarize, it is the opinion of the writer that Type A television is here and should be commercially authorized; that Type B television need not be considered for adoption even as an interim system; and that Type C television should be a subject for experimental development over a period of years with the thought that it will constitute the next great step forward in television after its development is successfully completed, thereby superseding Type A television. These opinions are believed to be shared in considerable measure by eminent engineers active in diverse television broadcasting directions. It is not known whether they represent the viewpoint of any organization or engineering body. It is however, urged that they be seriously considered at this time before steps which may be prejudicial to the future development of broadcasting in the United States shall have been taken. A position of leadership in television is offered to our country; let us act wisely before our great opportunities are lost.

PROGRAMMING

NEWS COVERAGE

Most dramatic moment in history made an equally dramatic television broadcast when the signing of the Jap surrender aboard the USS Missouri was shown over WNBT. The films, taken by Signal Corps cameramen, were flown back to this country by Major Gaskel, who directed the photographic coverage, and shown to video viewers the following Sunday. Particularly interesting was the personal eye-witness account of the ceremonies given by Major Gaskill as he narrated the film. A recording of McArthur's voice as he read the terms of surrender and called upon the defeated Japs and each member of the United Nations to sign the document added to the dramatic impact of the program.

The tumultuous reception given to General Wainwright on his arrival in Washington was filmed by the NBC motion picture camera crew, flown to New York and shown on WNBT that night. Television cameras were stationed at vantage points along the route, recording on film the journey to the Pentagon Building, the Washington monument, the presentation by President Truman of the General's fourth star, and his appearance before Congress.

New York's riotous welcome was also filmed by the WNBT staff and telecast that same night over the station.

Filming, quick developing, editing and then televising is no revolutionary technique but WNBT has developed a pretty smooth set-up for television. Here's the way it works. General Wainwright landed at La Guardia Field at approximately 11:00 a.m., was driven to City Hall, welcomed by the mayor and paraded up Fifth Avenue, ending up at the Waldorf-Astoria about 2:30 p.m.

Free-lance cameramen, placed at

strategic positions, took about 1200 feet of film. They were instructed, after getting their crowd and identifying shots—La Guardia Field, City Hall, etc.—to concentrate on medium and close-ups of the general and his party. A twelve inch telescopic lens was generally used for these shots. Shortly after the end of the parade, all the film was in a midtown laboratory being developed. Paul Alley, director of the Special Events Department, then took over, cut and edited from a negative, and when the negative went back to the laboratory, wrote his commentary. At 7:30, the program went on the air.

The Wainwright parade is a typical example of the time element required for such special event handling. Under existing conditions, with understaffing, etc., Mr. Alley estimates four hours as a good average time from event to transmission. With his expected larger staff of writers and editors, an additional hour will be saved—and in an emergency this time could be cut still another hour by using the negative of the film.

Both 16 mm. and 35 mm. union affiliated cameramen are used. In an overall program which covered General Wainwright's trip home, showing his arrival in Chunking, his landing in the states and the Washington and New York receptions both 16 mm. and 35 mm. film were mixed very successfully.

Looking ahead, Mr. Alley envisions a permanent and mobile staff stationed throughout the world, similar to the newsreel companies operations. The resultant library of film footage could be used as reference and as a backlog for future programming.

Mobile Set-Up

American Broadcasting Company has recently organized their own special events set-up, with the estab-

lishment of a permanent staff of 35 mm. union affiliated cameramen. After considerable experimentation, 35 mm. won out over 16 mm., as they believe it can do a better job. Although an agreement has been reached with DuMont, whereby ABC pays \$625 for each half hour of time, special events are on an exchange basis—with DuMont getting the advantages of "timely" service, and ABC getting the airing time. This set-up extends to WPTZ, Philadelphia and WRGB, Schenectady. In the future, these films will also be made available to independent television stations in cities where ABC does not have an operating station or an affiliate.

NBC has extended its mobile tele set-up to the Halls of Congress, having obtained the first definitely assigned position for television cameras in the House of Representatives. Both motion picture and television cameras will be placed in the same position accorded the film companies in the House Gallery.

CBS has also stepped up its mobile operations to include current events. Typical of this extended coverage were the shots of the horse races and the New York City elevator strike which were filmed during the day, processed and shown over WCBW that same night.

EDUCATIONAL

In great contrast to the elaborate initial program of live and film which opened the Encyclopaedia Britannica—CBS series, the second offering, "Disperse Upon the Land," was extremely simple in format, with greatest emphasis being placed on its educational aspects.

Opening announcement tied in with the use of films in schools today, then shifted to a classroom scene with the usual griping by the kids about the teacher and the things they had to

learn. A substitute teacher enters and a comedy note is injected with some snappy retorts calculated to put the kids neatly back into their places. A movie projector is then set up, with the teacher's voice narrating the film to the class. Moral is pointed by having the kids spring to attention and vie with each other in answering the quiz at the end of the class.

Close-up shots of seed dispersal were excellent, with films furnished by the Encyclopaedia Britannica. Audience reaction would depend, however on just how high personal interest in seed dispersal ran. For those interested in it, it was a good show. For those who weren't, it was on the dull side.

Chicago's educational series got underway with the "Battle of Books", presented by the Chicago Board of Education over WBKB and sponsored by the American Gear professional basketball team. Six students, divided into two teams, were quizzed on literary questions selected from their regular school courses. As reported in TELEVISION last month, special receiving sets have been installed in two Chicago schools so that large classes of students in both places may view the programs.

PUBLIC SERVICE

Following up on the success with which their War Loan drive met last spring, WBKB has launched a series of programs, produced in cooperation with the U. S. Treasury Department, which will run throughout the forthcoming Victory Loan campaign. Premier number featured Lum and Abner, of radio fame, who headlined a revue including a vocalist and the Naval Air Technical Training Center dance band. A returned Army Air Force war hero and the business manager of the Board of Education made the appeals. Special television receivers picked up the show at the Treasury Center located in the heart of the loop.

WCBW feature, "There Ought To Be A Law," now in its sixth month, is still proving a popular program, with thirty students of the High School Division Class in Radio Broadcasting debating the pros and cons of controversial topics. Particularly stimulating was the discussion on the advisability of extending Selective Service through the period of occupation in Europe and Asia.

Topic was chosen not only for its timeliness, but for the heated discussion it was bound to kindle since so many of the participants are either within draft age or nearing it.

SPORTS

Another sports telecast was chalked up when the national tennis championship matches from the West Side Tennis Club in Forest Hills were brought to WNBT's viewers. Two orthicon cameras picked up the action in the final matches for the women's doubles, the men's singles and the mixed doubles.

At WCBW, amateur fights, under the supervision of the Metropolitan Association of the A. A. U., are still a weekly feature. Bouts originate right in the studio.

W6XYZ's wrestling matches, put on in the studio, feature some smooth camera work and good video techniques. Show is an interest holder for fans.

WNBT's football schedule is now underway with Red Barber giving the commentary on the nine gridiron contests being televised by the station.

WPTZ swings into their fifth year of bringing football to their Saturday afternoon audience. (See "Football Commercial," page 26, for details.)

THRILLERS

"Dairy of Death" from CBS' radio mystery series, "Crime Photographer," was adapted for television and presented over WCBW. This was the first mystery thriller staged at the studio since the return to "live" programs in May, 1944. This series dramatizes the adventures of an inquisitive newspaper cameraman, "Flash-Gun Casey," and a woman reporter. Theme centered on a mind-reader and his daughter, who is murdered. Casey's reporter friend is accused of the crime, and the plot unfolds with Casey solving the mystery. The show was "live" throughout, with four sets built in the studio to handle locale changes. Two of the radio players repeated their roles in the video production, with the balance of the cast drawn from stage and screen.

Another WCBW crime show let the viewers play detective along with Inspector Jonathan Quinn, "who dunnit" expert of the new "Photocrime" series. These are being pro-

duced in collaboration with Look Magazine, in which "Photocrime" is a regular capsule mystery feature.

The armchair detectives get their first chance at untangling the mystery while the crime is being enacted. Failing in this, a quick run-through of all conflicting evidence and clues gives them a second opportunity to spot the criminal before the Inspector's revelation at the program's end.

COMEDY - DRAMA

Good tip for small stations looking for programming material can be taken from W6XAO, Hollywood. Co-operating with the Birmingham General Hospital, which has been giving a radio training course to a group of their servicemen patients, a comedy-drama, "Cops Don't Get Married," was televised as an illustration of the work being done. Cast did a swell job of handling the script too! Besides offering a source for talent, such programming has high audience appeal because of popular interest in veteran hospitals and rehabilitation work.

WNBT's opener on the fall season of Sunday night's television productions was "Another Language," the comedy hit of both stage and screen. A simple domestic comedy, it deals with the Hallam family and their internal upheavals. In line with NBC's determination to use these Sunday night presentations for their own experimentation, doing a show which required several weeks' rehearsal before it hit Broadway added to their tele experiences.

The American Broadcasting Company's "Singing Lady," Irene Wicker, beautifully overcame the difficulty of translating a good radio show into the medium of television. With eight children, ranging from about three to ten years of age sitting around her and a few quick-change props, Miss Wicker made the story of "The Three Little Pigs" an ingratiating and lively tele show.

WRGB aired the show to an enthusiastic audience of kids and grown-ups. The squeals, giggles, interruptions, comments and fidgets of the unrehearsed kids made the show a natural.

There was an attempt to use cartoon drawings to illustrate the story as it progressed. Had the artist and the drawings been more closely knit into the whole production, the at-

tempt might have been more successful.

Actually, not the format, not the children and not the story made this show the fine job that it was, rather, it was the talent of the actress. Here's a perfect example of a script that is good but nothing too super, a format that is good but no gilt-edged guarantee and an average production expense, made into a bang-up show by solid professional acting—a thought that should stick in the minds of all producers of television shows.

WNBT next presented "Victory," adapted from Joseph Conrad's novel. Set in the South Seas, it deals with a Swede, Alex Heyst, who lives on a tiny dot of land in the Java Sea. Through occasional trips to Surabaya, the port of Java, Heyst incurs the hatred of a hotel proprietor and becomes involved with personalities stopping at the cheap hotel. Film inserts showing the approach of a boat to the island, and the island itself were exceptionally well done. Particularly effective video technique was the dubbing in of a binocular effect as the two on the island watched the approach of a rowboat through the glasses. Docking of the boat itself, which was "live," was also realistically handled. This was one of the few television shows to star "names," with Uta Hagen, Broadway star, playing the only woman in the cast.

Another WNBT presentation was an adaptation from a radio play, "Beachhead at Louie's," which dealt with the problems of rehabilitating returned servicemen. Louie's is the corner coffee place where civilians and war workers are gathered when the soldier drops in. Using the flashback technique, the story tells how the soldier, brooding upon his overseas experiences, is encouraged to talk about them and in so doing is helped to resume his normal way of life.

WBKB brought the impresario of one of Chicago's most unique night spots before their viewers with "A Night at Ricardo's." Sets approximating the Bohemian atmosphere of the nighterie were set up in the studio and the script depicted the various types of patrons and their reactions to the talented waiters comprising the staff. Ricc sang and instrumentalized on his fantastic bass viol—a stringed instrument with bells, drums, etc. "Uncle Joe Stalin," his pet dog, also made a video bow.



The "Singing Lady" spellbinds a group of kids during the ABC telecast over WRGB. Unrehearsed antics of the youngsters make the show a "natural."



"Dairy of Death" from the CBS radio series, "Crime Photographer," was presented over WCBW. "Flash-Gun Casey," is the hero of the thriller.



The two sisters of Elizabeth Barret Browning in a scene from "The Heritage of Wimpole Street," WOR, Mutual's television presentation over WRGB.

At WRGB, "The Heritage of Wimpole Street" was televised by WOR, Mutual, as part of "The Brownstone Theatre" series. Theme centered on the life of Elizabeth Browning. The show featured a "ghost scene" in which the dead poetess appeared on one set, her voice superimposed upon the voice of one of the actors who recited "Sonnets From The Portuguese."

AUDIENCE PARTICIPATION

Typical of the type of inexpensive program, which can still prove darn good entertainment, is "The Missus Goes A-Shoppin'," adapted from the WABC radio program. John Reed King, as emcee, and his assistant set a rapid pace with trick stunts, drawing their unsuspecting victims from the audience. Inexpensive prizes pay off the free "talent." Show is a regular on WCBW.

FILMS

With the exception of the weekly football telecast and relay programs from WNBT, WPTZ is still operating with films. Selections include newsreels, cartoons, educational and sports shorts, as well as feature films. W9XYZ has also resumed operations, with their programming limited to films.

W6XAO film fare included "F.D.R.," a new release on the life of the late president. The production covers his personal life, political career and achievements, and includes authentic news pictures taken throughout his career, up to his funeral and death. "Operation Pluto," concerning the vital pipe line built under the English channel to the mainland, was obtained from the British Information Service Film and, until recently, was used strictly for military information. In the educational line, "Magic Versus Science" was offered. This showed, through a series of experiments by G-E scientists, how magic makes simple things baffling and science makes baffling things simple. Fostering the Good Neighbor policy, "Sao Paulo" showed differences in South and North American customs and ways of life; while "Manana Land Today" took the audience on an imaginary visit of old Mexico. Cartoons and sports shorts rounded out the film selections.



Here's one of the happier moments in the lives of the Hallam family, from the WNBT telecast of "Another Language." Crowded hatrack in background is in keeping with the helter-skelter tempo of comedy, based on typical family life.

RELIGIOUS FEATURES

In commemoration of Rosh Hashonnah, the Jewish New Year, special religious services were telecast over WBKB. Opening with a discussion of the role the Jewish race has played throughout history, and a commentary on the religious significance of the ceremonies, the program featured musical selections, religious songs and a simulated service conducted by a rabbi in the studio.

The whole production was handled in excellent taste, with the many different elements welded into a smooth format. Exceptionally good video techniques were displayed in the high-lighting effects. This program is another in the WBKB series commemorating important religious holidays of all faiths at various times during the year.

NOVELTY OFFERINGS

Beauty and brawn tangled in the WCBW "Commando" telecast, with a former Canadian Army instructor teaching commando-judo techniques to Powers models.

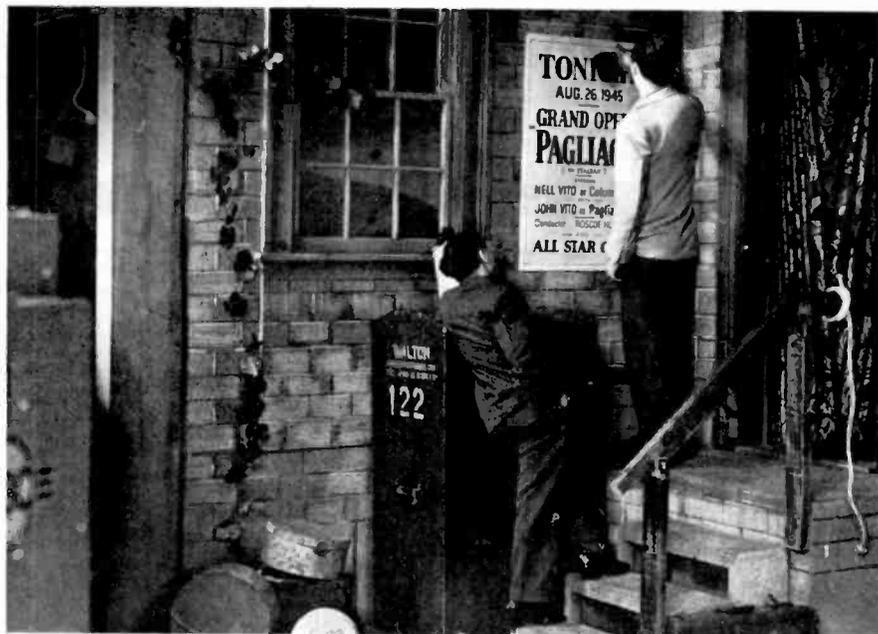
WBKB afternoon lookers got a preview of oil paintings made during the battles of Tarawa and Bougainville by Kerr Abby, recently returned from an assignment as war-artist corre-

spondent in the South Pacific. Pictures were accompanied by a commentary from Abby, explaining the circumstances under which the paintings were made.

STORY TELLING

"Thrills and Chills" has now begun its fifth year on television. Its format has always been a homey, friendly interview with many of the world's best known adventurers, interspersed with motion pictures of the guests' adventures. Last presentation, before WABD went off the air, featured Margaret Kennedy, well known explorer who, during her trip to India, was one of the few women to go through the Khyber Pass. The only films ever taken of the Pass were shown during the telecast.

WCBW started a new twice-monthly series on American folklore last month, with Milton Bacon doing the story telling. Format is built around a homey fireside setting, with Bacon reminiscing to a group of friends. Films, photographs, maps and drawings visualize his tales for the viewing audience. Opening telecast used the Lewis and Clark Expedition as a story source, with the second program centered around a great landslide in New England.



Setting the stage for the modernized version of "Pagliacci" presented over WNBT, the operatic adaptation opened with two stage hands posting the notice of the evening performance. Their conversation cues the audience for the plot.

OPERATIC ADAPTIONS

Pagliacci was the latest in the series of operatic adaptations which Dr. Herbert Graf, stage director of the Metropolitan Opera House, produced over WNBT. In line with his policy of bringing opera up-to-date — or down to the common level—Dr. Graf set the tempo of jealousy and heart-break behind the painted smile of the clown by attributing them to the members of a touring opera company about to perform Pagliacci. Using the operatic theme of a jealous spouse, a faithless wife, an impetuous lover and a spurned suitor, the libretto was explained in story form by a little drama unfolded in the backstage dressing room before the scheduled performance.

The show then went on with the modern touch again added by occasional shots of the lover perched on the edge of a front row orchestra seat, emoting first to catch the eye of his loved one and finally springing in alarm to the stage as the acting became a little too real for him. Grand finale, of course, had two corpses on the stage, a policeman very gently leading Pagliacci off, and Toddev announcing in doleful tones that the comedy was over.

It seems to us that if opera is to be brought up-to-date, the emotional angles should also be modernized.

Against the colorful pageantry of undiluted opera, uncontrolled emotions violently portrayed with sweeping gestures, heaving shoulders and bowed heads add to the mood created by the musical score. In 1945 dress and vernacular, against the commonplace background of a theatre wing, those same sweeping gestures and heaving shoulders overplay the dramatic angle and make the acting appear ludicrous at times.

Technically, however, some very interesting things were done. As the Petrillo blight has killed all live music around television studios, RCA recordings were used and Dr. Graf did a swell job in synchronizing the recordings with the vocalizing of the actors. If it had not been for the announcement, very few people could have detected that the operatic portions were dubbed in. To achieve this realism, Dr. Graf used singers instead of actors, because he felt that only by using people familiar with the roles and actually having them sing could a natural effect be achieved. The performers sang along with the recordings—which were audible to them in the studio—but a dead mike killed their renditions.

As a result of this experiment, Dr. Graf thinks that perhaps recordings will prove the answer to televised opera in the future even after the Petrillo strangle-hold is loosened.

However he feels that the people singing the roles should make their own recordings in advance—and in English. This would assure a more, perfect singing performance, leaving the singers free to concentrate on their acting.

Approximately 56 hours of rehearsal time went into the 40 minute production—40 hours without the camera and 16 hours with one. Dr. Graf does not believe the time can be trimmed down much — for as he points out, the same problems inherent in producing a stage show, plus the added problem of camera shooting, are combined in television production.

PROPS AND PAINTS

Reflective metallic backgrounds, instead of the usual flat grays, have been advanced as a solution for a baffling television background problem by Chet Kulesza, technical supervisor of art and production at BBD&O, Inc., and Ted B. Grenier, chief engineer of Metropolitan Television, Inc. Their experiments have shown that metallic backgrounds, using either metallic display or ordinary commercial paint in gold, silver, copper, brass or bronze, improves the clarity of varicolored objects, results in black tones televising blacker, simplifies the problem of black lighting and requires less light for the camera.

While the experiment at WRGB, where mercury vapor lighting is used, came up to expectations, the silver background is understood to be more effective under incandescent lighting, such as is used in New York television studios.

DUMONT OFF THE AIR

What started out as a smart, "jump-the-gun" move has back-fired on DuMont. Following quickly on the announcement of the new Wanamaker studio set-up, DuMont went off the air on September 20 to shift the station from its former channel 4 (78 to 84 megacycles) to channel 5 (76 to 82 megacycles), having received permission for the move from the FCC. But on September 20th, the FCC issued new allocations in which Channel 5 was NOT assigned to the New York area.

Check of the other operating stations show they are awaiting final FCC decision before shutting down for change-over.

EDITORIAL

ANTENNA SYSTEMS

The problem of working out an antenna system for multiple dwellings is not a new one. It is a problem which has concerned the industry for some time. The point has now been reached though where some immediate action must be taken in view of the many new building projects which will probably be under way by July '46. A check with the Housing Authority of the City of New York discloses there are no provisions for television antennas in their new housing project plans. Further check with the American Institute of Architects shows that they have no information which will enable them to plan television antennas in their construction plans. Mr. Morris Sanders, chairman of the technical committee of this organization, places the blame for this situation on the manufacturers, "Why, how, where, and when television antennas are to be in new construction is a concern of the television industry. I know of the plans of many buildings and none of them to my knowledge include television in their planning."

Comments:

REPRINTED FROM THE HOLLYWOOD REPORTER:

IN the July-August issue of TELEVISION, under the heading "Editorial" appears the following, titled "The Hollywood Touch":

"In their inimitable style the movie makers have started off on the wrong foot in television programming. W6XYZ, Paramount subsidiary, has proudly announced a tie-up with NEA to experiment with comics on television. That the newspaper comics are an important part of American life cannot be denied. BUT it is our feeling that with the limited hours now available for experimentation, any extensive work in the use of comics is a shirking of responsibility. Undoubtedly, Hollywood will play a dominant part in television programming. Let us hope that they approach it on a higher plane than they have with films in the past. It is up to the progressive element to take over and put Hollywood in its rightful place as an educational and cultural center as well as a film factory. Evidently the film moguls have yet to learn that educational matter, presented properly, can entertain."

First we would like to ask the mag with what authority and background they make these statements. The masthead fails to reveal any connection between its writers and the motion picture scene. The self-styled "experts" who write behind the anonymity of an editorial give prima facie evidence that they are either afraid to be quoted or reflect the opinion of the publisher and editor. If the publisher or editor is smart enough to tell movie-makers what "the right foot" is why don't they come out here and put their

This is a situation which calls for immediate action on the part of the industry. While it probably is not possible now to advance any definite multiple dwelling antenna system, there is no reason why some suggestions should not be made to building and architectural groups at least as to duct space for a master antenna system.

THE "MANANA" HABIT

A check among Congressmen shows that too many of the leaders in government are still thinking of television as belonging to a nebulous "tomorrow," with today's efforts compared to the 1910 movies.

A public relations campaign carried right into the Halls of Congress might hasten the realization that television is here NOW, that its "tomorrow" must start today. Government feeling toward video might be entirely different if Congressmen could be shown some of the football telecasts and other top notch shows. Such a move could easily result in more tele-conscious legislators — an important factor for the future of the industry.

money where their typewriter is. The article admits that comics are an important part of American life, then berates local television for "shirking responsibility." Television, then, we must assume, is not to be an important part of this life of ours. The experimentation with video in New York. Mr. Publisher, has been a lot more amateurish than even the beginning of motion pictures and an honest admission by your organ would welcome any form of "experimentation," be it the use of comics or any other method to bring enjoyment to video set owners.

As for your concession that Hollywood will play a dominant part in television programming, you aren't telling us a thing. Hollywood will play as important a part in video as it does today in radio and pictures and probably a greater part than you will dare allow yourself to admit. If you will check the grosses of film cartoons you will find that the American, as well as the foreign peoples think they are a great source of entertainment. And in your own issue you think enough of Bugs Bunny (Bob Clampett) to give him a full page. It is very evident that your editorial is not aimed at W6XYZ's move to use cartoons, but rather to "tell Hollywood a thing or two." When television can amass the millions that movie-makers have we will listen to your ravings. It's too bad you couldn't have seen some of these cartoon "experiments" as we did. You would blush with shame. Articles such as you print can do the television industry little good, but you can and have done the motion picture industry a great injustice.—KARL SANDS

Philco Engineering Produces the

FORE-RUNNER OF TOMORROW'S TELEVISION NETWORKS

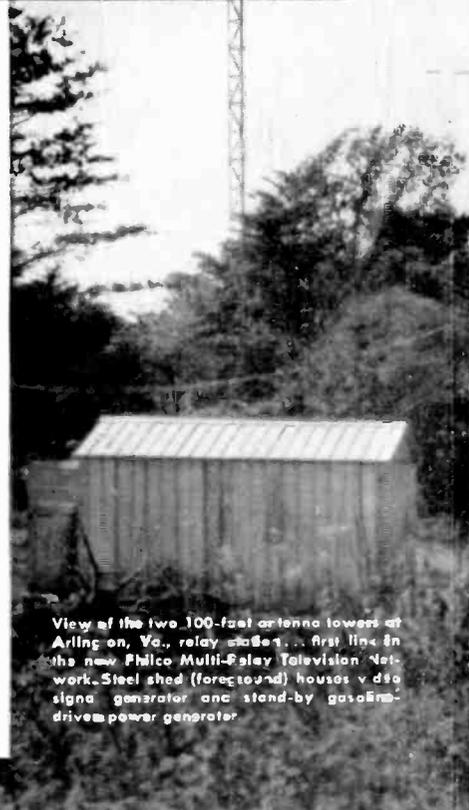
PHILCO SCIENTISTS and engineers ... working for the more rapid development of television ... are responsible for a number of revolutionary advances in this field. One of the more recent of these is of unusual significance to the industry, for it will vastly increase the range of television ... and the size of television audiences.

To Philco pioneering goes the distinction of designing and constructing the first multiple-relay system to link two major American cities ... Washington and Philadelphia. The Philco engineers worked out new electronic devices for amplifying television pictures and relaying them from transmitter to transmitter without distortion ... giving scientific proof that the technical basis for coast-to-coast networks has been achieved.

Philco is proud of the vital contributions it has made to the industry. America may look to the Philco engineers for further work in this field ... further pioneering ... so that tomorrow's audiences may enjoy the very highest developments of this new science.

PHILCO

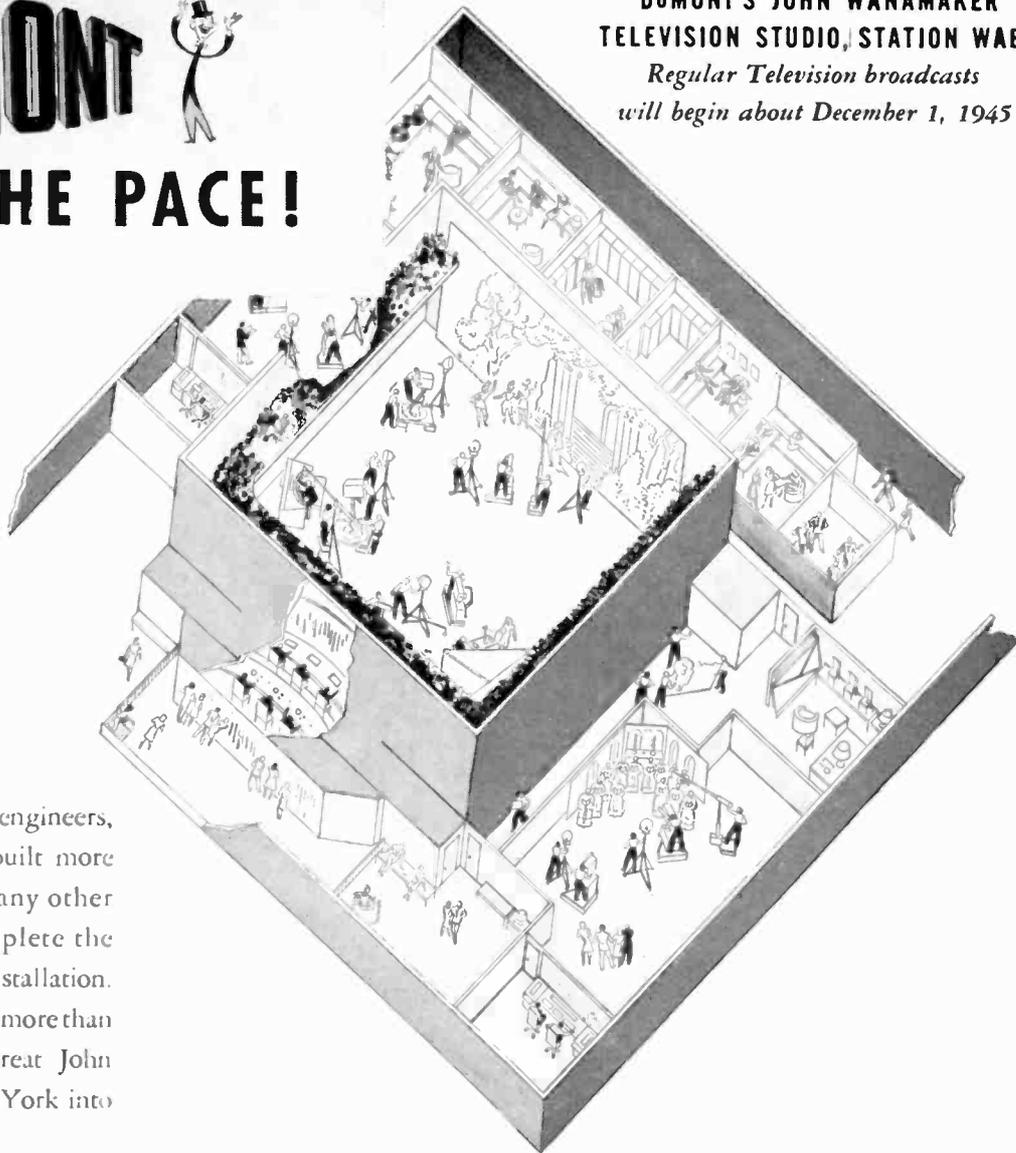
Famous for Quality the World Over



View of the two 100-foot antenna towers at Arlington, Va., relay station ... first link in the new Philco Multi-Relay Television Network. Steel shed (foreground) houses video signal generator and stand-by gasoline-driven power generator.

IN TELEVISION **DUMONT** SETS THE PACE!

DUMONT'S JOHN WANAMAKER
 TELEVISION STUDIO, STATION WABD
*Regular Television broadcasts
 will begin about December 1, 1945*



DuMONT TELEVISION engineers, who have designed and built more television stations than any other company, will soon complete the world's largest television installation. They are now transforming more than 500,000 cu. ft. of the great John Wanamaker store in New York into the first "Television City."

The largest studio (50' x 60' with a 50' ceiling) boasts 4 cameras—the first studio to be so well equipped. A balcony accommodates 700 spectators and a rear glass wall of the control room permits sightseers to watch rehearsals and broadcasts. Two other "live talent" studios are equipped with 3 and 2 cameras each. Several

cameras are mounted on a new type dolly providing extreme ranges of elevation and camera angle. A telecine studio has projectors for both 16 mm. and 35 mm. film.

DuMont Television broadcasting equipment embodies all the flexibility and refinements accruing from more than 4 years of continuous and

increasingly elaborate programming experimentation. Simplified precision control—the keynote of DuMont design—assures high efficiency and rugged dependability at low operating cost. DuMont leadership means adequate training of your technical personnel, and the finest craftsmanship for the least outlay.

Copyright 1945, Allen B. DuMont Laboratories, Inc.

DUMONT



Precision Electronics and Television

ALLEN B. DUMONT LABORATORIES, INC., GENERAL OFFICES AND PLANT, 2 MAIN AVENUE, PASSAIC, N. J.
 TELEVISION STUDIOS AND STATION WABD, 515 MADISON AVENUE, NEW YORK 22, NEW YORK