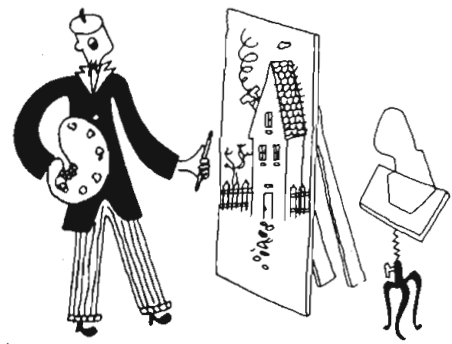
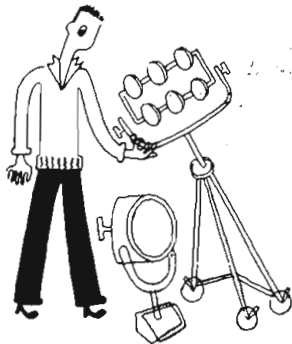


# Television

35¢

THE BUSINESS MAGAZINE OF THE INDUSTRY

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*NBC Television producers, directors, writers, cameramen, lighting and scenic experts, technicians and engineers...*

are backed by the longest, practical television production experience—  
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**NBC TELEVISION**

**NATIONAL BROADCASTING COMPANY**

A SERVICE OF RADIO CORPORATION OF AMERICA





*Sherron*

## AUDIO CONTROL DESK

Model SE-400

### For Aural Monitoring

The Sherron Audio Control and Monitoring Console offers the aural technician or operator exclusive control in Television, FM or AM broadcasting.

All contacts are centrally located, so that the operator can meter and monitor the aural program with complete ease.

Among the many features of this unit are the following: seven (7) Audio Inputs; four (4) balanced ladder network for control of selector inputs; line equalizer; two (2) program amplifiers; Inter-office communication; decibel indication for monitoring; two turntables, a complete aural control desk.

Another important feature of this unit is the fact that it is designed to permit expansion. The rack panels located in the center are readily removable; there are no wires to disconnect. All connections are made by means of plug-in jacks or sockets.



# SHERRON ELECTRONICS CO.

*Subsidiary of Sherron Metallic Corp.*

1201 Flushing Avenue • Brooklyn 6, N. Y.

*"Where the Ideal is the Standard, Sherron Units are Standard Equipment."*

# Television

VOLUME III, NUMBER 3

MARCH, 1946

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## Just talking . . .

What with all the uninformed national magazine articles appearing lately and the withdrawal of half a dozen or so station applications supposedly in favor of color — but more likely as an excuse for not having to get into television now — we skipped the editorial page this issue.

We figured it would be better to count to ten before chewing someone's head off.

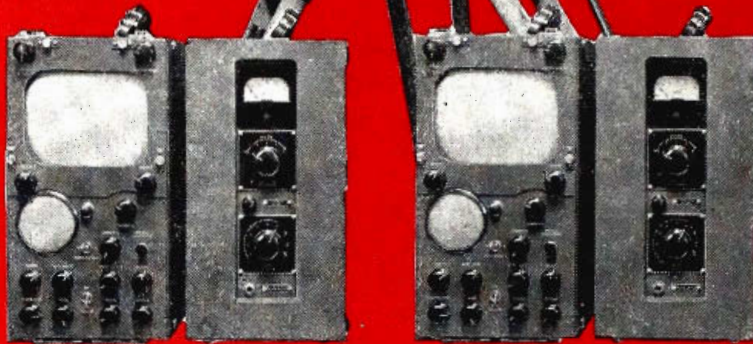
**Frederick A. Kugel**



# RCA's *Dual-purpose*

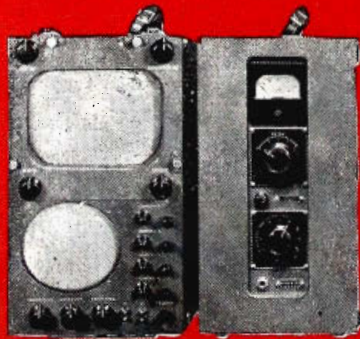


New RCA "image-orthicon" camera with sensitivity 100 times greater than conventional television cameras.

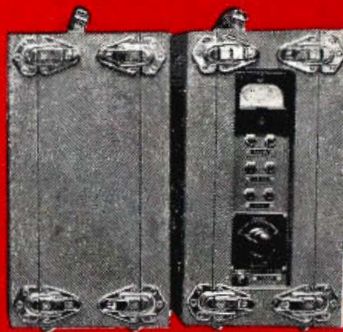


Camera control (left) with power supply

Duplicate camera control used for two-camera operation



Master control (left) with power supply

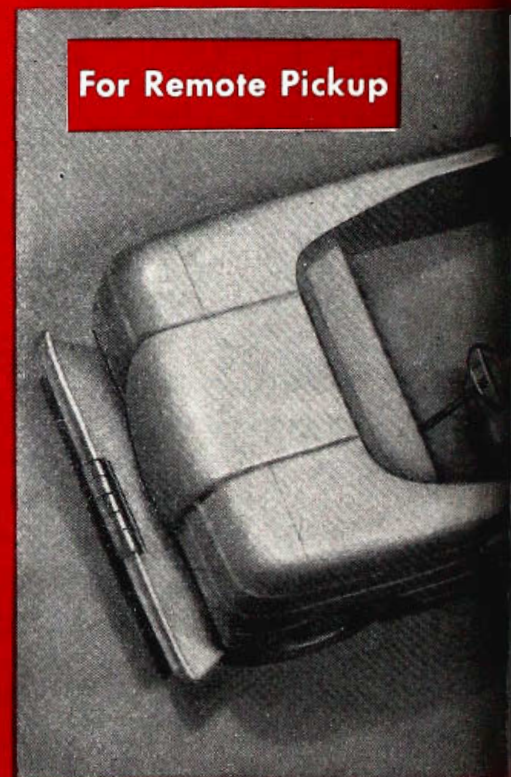


Shaping unit (left) and pulse unit

The average small station starts with two field cameras, two control units (one for each camera) for monitoring the pictures picked up by each camera, a master control and switching unit which contains push buttons to permit operator to select the camera pickup desired, a field synchronizing generator (shaping and pulse unit shown above) to provide standard sweep frequencies for the cameras as well as the synchronizing pulses transmitted with the video signal, and various auxiliary switching, control and audio equipments (not shown).



For Studio Use



For Remote Pickup



# Portable Pick-up Equipment...

## a new, low-cost way to get started in Television

**I**F YOU PLAN to start a television station on a modest scale, you will find this equipment a real money-saver. With it you can enjoy the economies of using already prepared program material such as, baseball games, boxing and concerts—which do not require expensive rehearsals and where lighting is seldom a problem. And you can use it in place of *fixed studio equipment* until you want to expand your station facilities.

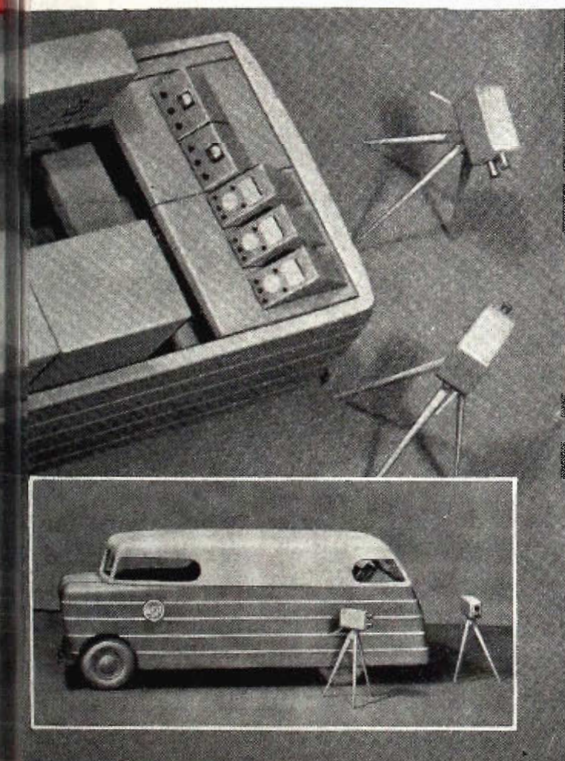
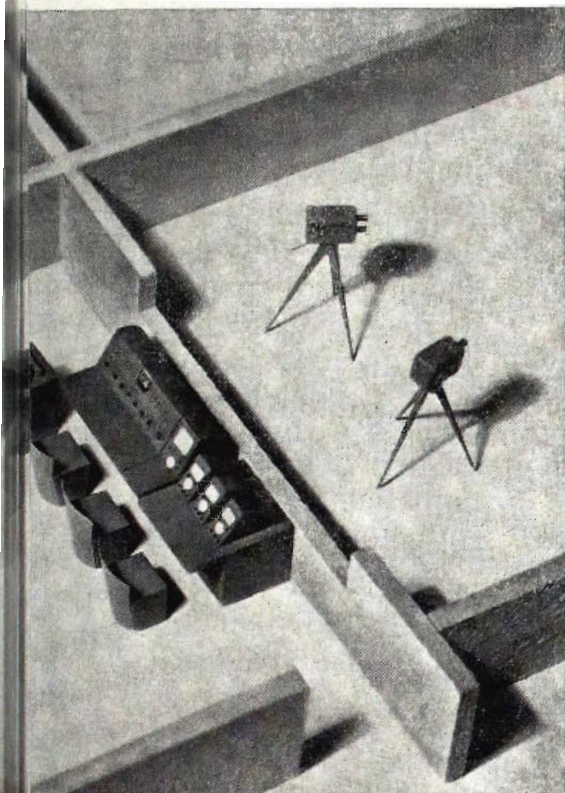
When used as studio equipment, the small, lightweight camera-control units can be mounted on tables or slid into console-type racks (see models) that RCA will have available for this purpose. The same field cameras are used.

For remote pickup, a station wagon or light truck is used to transport the suitcase-type units to the program location. With a station wagon, the equipment is removed, carried to the program area, and connected for operation. A light truck offers greater flexibility in that the equipment can be operated from the truck if shelter is non-existent, or if brilliant illumination makes monitoring difficult. As with the station wagon, where advantageous, the equipment can be removed and set up at the program scene.

*Setup* can be accomplished in a short time. *Quality* is comparable to that obtained from standard studio equipment. Best of all, it's *easy to operate*.

### Write for these 8 helpful bulletins:

"Locating the Television Studio," "Locating the Television Transmitter," "A Television Transmitter Building," "A Television Broadcasting Studio," "Equipment Layout for a Standard Television Station," "Equipment Layout for a Master Television Station," "Equipment Layout for a Small Television Station with Live-Talent Studio," "Equipment Layout for a Small Television Station with Provision for Film and Network Programs Only." Write: Radio Corporation of America, Dept. 79-C, Television Broadcast Section, Camden, N. J.



**TELEVISION BROADCAST EQUIPMENT**

**RADIO CORPORATION of AMERICA**

**ENGINEERING PRODUCTS DEPARTMENT, CAMDEN, N. J.**





## Wave Makers

"A leaping trout awakens the still pool to life in waves that move in silent rhythm."

In the same way, when you speak over the telephone, vibrating electric currents speed silently away with the imprint of your voice over the wire and radio highways of the Bell System.

Tomorrow, the vibrations will be the living pictures of television. All are examples of wave motion.

How to produce, transmit and receive electrical wave motion is the basic problem of the communication art.

Bell Telephone Laboratories, which exist primarily to invent and

develop better communications for the Bell System, devote the teamed efforts of physicists and mathematicians to the production and control of electric waves in all forms.

Out of these fundamental studies have come the discoveries which keep the Bell System at the forefront of the communication art.



**BELL TELEPHONE LABORATORIES**

EXPLORING AND INVENTING, DEVISING AND PERFECTING, FOR THE CONTINUED IMPROVEMENT OF TELEPHONE SERVICE



# Who will get into tele-and why

By DOROTHY HOLLOWAY

**J**UST what are your chances for winning out over other bidders for a black-and-white television station in one of the country's top half-dozen markets?

As FCC sees it, your chances are good, if, in addition to having a good Dun and Bradstreet rating and a clean slate at the Commission you are (1) applying for a station in your home town; (2) are a newcomer to video and have no other licenses in your pocket; (3) or are a network with plans for a nation-wide TV hook-up.

All three considerations were compelling in FCC's proposed awards of three of Washington, D. C.'s coveted picture channels to the Evening Star Broadcasting Co. (WMAL), Bamberger Broadcasting Co., and NBC. A fourth principle clearly implied — but not spelled out in black-and-white — is FCC's insistence on permitting only financially strong applicants in television. This feeling prevailed in FCC councils and was plainly responsible for closing off the chances of little Capital Broadcasting Co. (WWDC) almost at the outset.

While these guideposts are important, they do not tell the whole story. For they did not give FCC the answer on which of two tele pioneers — DuMont Laboratories, Inc. and Philco Products Corporation — should clinch the Capital's fourth and last remaining video slot.

With Philco's withdrawal, the FCC will probably be spared the decision. Plainly wringing its hands over a choice between the two companies, the FCC had called for a further hearing at which counsel for both bidders were to have bulwarked their earlier appeals. Philco and DuMont were given the right to take exception to any of the FCC proposed grants which meant keeping the Washington line-up still completely open and subject to change. Philco, in a letter to Charles Denny, acting chairman of the FCC, protested the decision and pointed out their pioneering work in high-frequency television relays. Rather than engage in controversy which would delay the start of tele, they stated "we have therefore worked out ways and means of cooperating with certain other companies so that we can carry forward this development work even without a Washington station."

## Reaction to FCC's Washington Findings

Although the issue has been settled, radio men are quick to point out several loopholes and inconsistencies in the FCC's rationale for its Washington assignments.

On the procedural end, lawyers take exception to FCC's provision for only an "oral argument" rather than a second "hearing" to clinch a final choice between DuMont and Philco. In a judicial proceeding like this, they point out, bidders cannot introduce new evidence at oral argument. This meant that if Philco and DuMont had decided to fight it out, the FCC would have had to rely on the relative persuasiveness of the contestants' counsels to carry the day.

At the same time, FCC's principle of preferring newcomers over those already in television may be double-edged. Just what effect this will have on Bamberger's application for a New York City TV station is not known. At least a half-dozen local groups, all new to television, are competing along with Bamberger for the New York market. Given a choice of only one or the other location, it stands to reason that Bamberger would prefer a grant in New York City, its home town and the top source of program talent.

And should Bamberger win a Manhattan outlet, it seems reasonable that Philco will have a right to feel aggrieved, since one of the arguments used against them in Washington was their ownership of a Philadelphia outlet.

Others take position that FCC gave too little weight or "veteran's preference" to the very television companies who have pioneered and done most to make TV a reality.

Still others argue that Bamberger and the Star may never exercise their options on the low-frequency television, since they have been assigned channels #9 and #7 respectively. No equipment is presently available for either spectrum location. FCC proposes to award NBC — most nearly ready to launch a commercial service — channel 4. DuMont will probably come off with channel 5.

Judging from the way the Washington allocations came out, industry can probably look forward to other withdrawals in such crowded cities as New York and Los Angeles and the strong possibility of horse trading among the various applicants.

*(Full text of proposed decisions on Washington, D. C. hearings on page 36.)*

# PERSONNEL required for 28 hour programming week

Number of people necessary to operate a station on the required schedule which goes into effect July 1st vary from 12 for a small local operation to 190 as stated in the Philco application for a video outlet in Washington. Here's an analysis of the various factors involved which will have a bearing on the final personnel requirements.

By **SIDNEY R. LANE**

**H**OW many people are essential to the successful operation of a station on the twenty-eight hour schedule? Personnel requirements in the operating studio today can only be taken as a guide, for programming has been admittedly experimental and nowhere has it approximated the daily schedule which stations will have to meet beginning July 1st.

There are many elements which must be considered when basing personnel requirements. Number of studios, amount of equipment, union regulations, interchangeability of jobs, scope and type of programming all have a bearing on the final staff. In general, television personnel may be fitted into three classifications — technical, programming and business administration. Within these subdivisions are many variations in the titles affixed to the various job classifications as reported by operating and proposed stations. But that is to be expected in a medium as comparatively new and as formative as television. At present there is a degree of interchangeability but unions who, up to now, have been studying the problems and work requirements of the new industry, will soon step in and exert a wide influence in determining the functions of each television employee. While many "privileges" are permitted now, the application of union rulings to tele personnel is a matter that is subject to change. At present there is the Lea Bill which seems aimed at Petrillo overloading of personnel on broadcasting stations. If it passes Congress there will be no standby musicians or other non-participating personnel.

## Equipment Design

Type of equipment will influence the amount of personnel in the technical departments. Control equipment design is now being studied by manufacturers with the object of placing the controls in the hands of the fewest possible technicians. This trend toward simplification, besides cutting down the station payroll, is aimed at easier production and less chance of error in the "on the air" show. Something to watch for along these lines, is one manufacturer's claim that in small stations, the elimination of the cameraman is possible if the scope of the presentation is small enough to permit pickup with no change of focus and without camera angling. However, few things are duller than a presentation limited to one fixed camera position. The desirable mobility of the medium is lost with this kind of false economy.

Technical personnel is directly related to the equipment which must be handled. However, it is in the programming end of operations that the widest variance occurs and where the personnel required is directly related to the station's programming aims and schedules. The percentage of live studio productions and the type of programming planned are determining factors, for obviously simpler presentations like audience participation and quiz shows, require less production supervision than more

elaborate presentations requiring many scenes, even if such programs are planned for only one or two hours a week.

CBS in a statement before the FCC last October, stated that they required a full time staff of 80 people to produce only four hours of good and original programming per week. In a recent article, Edward Sobol, producer at WNBT, stated "A television production at NBC involves the following personnel. Five men in the control room, including a man on turntables, three camera operators, three stage hands, two light operators, one "mike" boom operator, one sound man, one stage manager, one scenic designer and one studio supervisor. That makes a total of 18 in direct touch with the television production."

On the other hand, Sam Cuff, DuMont program manager, in his article on "Operating a Small Local Station" (page 16), listed a staff of 12 people to supply an adequate 28-hour programming week, for the local station.

## Washington Applications

Perhaps the most concrete analysis of the personnel needed to operate under the new regulations were the lists and charts presented by the applicants for video stations in Washington, D. C. While all figures vary, they are directly related to definite programming plans and technical equipment and as such may serve as a guide.

NBC, with its weekly schedule comprising 4 hours of studio, 7 hours mobile, 5 hours film and 12 hours fed from the net in New York showed a chart of employee categories.

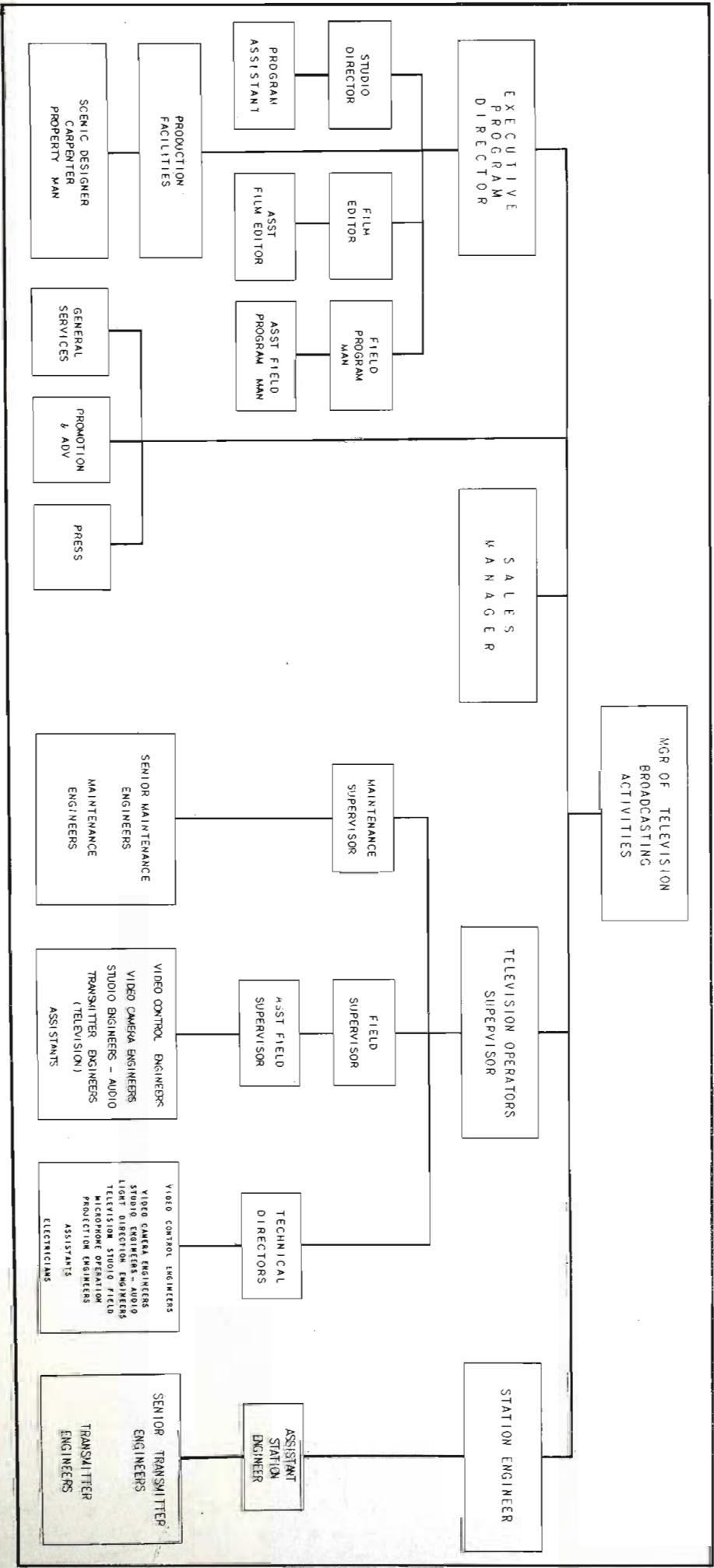
DuMont's schedule called for 31 people to handle 19 hours live, 6½ film, 6 remote and 2½ relayed from New York. DuMont also includes among its personnel the position of Continuity Acceptance Supervisor whose duties include script censorship, copyright clearance, and examination of the program plans so that there is not too much similarity in music or dramatic theme on successive hourly programs. The primary duty will be to function as coordinator of outside activity in relations with the advertising agencies. Studio manager states that it is an office peculiar to DuMont because so much of their programming comes from the advertising agencies.

Bamberger figures on a staff of 51 for their programming, composed of 12½ hours studio, 3 hours film, 6 hours mobile pickups, and 6½ hours from New York. The program department includes: 1 director of program operations, 2 production directors and 2 assistants, 2 writers, 1 news director and assistant, 1 special events director and assistant, 1 program coordinator, 1 art director, 1 animation assistant, 1 costume and make-up assistant, 1 scenic design assistant, 1 scene shifter, 1 sound effects technician-record librarian, 1 motion picture cameraman, 1 assistant motion picture cameraman, 1 film laboratory technician, 2 executive secretaries, 6 typists.

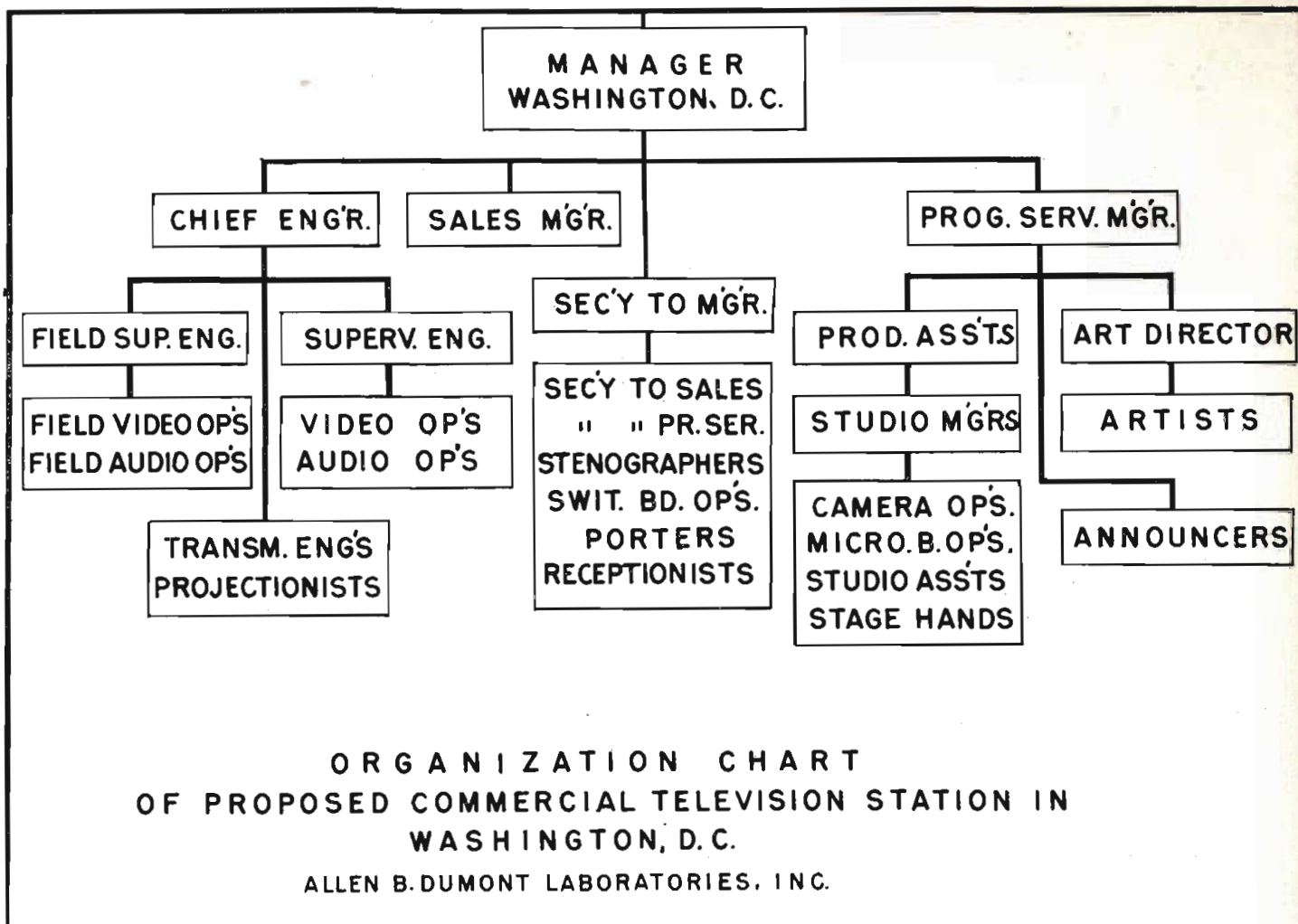
In the engineering department there are: 1 chief engineer and assistant, 1 assistant supervisor transmitter, 2



# Proposed Organization Chart For NBC Washington Television Station







transmitter engineers, 1 assistant supervisor studios, 4 video-cameramen, 6 video-control engineers, 2 light-control engineers, 3 audio-control engineers, 1 film-control engineer, 1 assistant supervisor technical facilities, 2 maintenance engineers, 1 assistant supervisor field pickup, 1 executive secretary, 4 in clerical pool, 1 chauffeur.

One of the most complete lists of personnel was submitted by Philco in its application. Over 40 job classifications were listed, totaling a staff of more than 190 people. This total is based on an elaborate weekly schedule of 41 hours, which consists of 25 hours studio, 2½ hours film, 13½ hours mobile.

Philco's personnel includes: 5 chief technicians, 20 video operators, 10 sound operators, 8 mike boom operators, 17 cameramen, 14 assistant cameramen, 3 projectionists, 6 electricians, 6 electrician's helpers, 3 transmitter operators, 3 assistant transmitter operators, 3 remote receiver operators, 3 studio relay transmitter operators, 4 remote relay transmitter operators, 3 truck drivers, 4 remote equipment installation men. These employees make up the engineering department.

In the program department there are: 1 art director, 1 assistant art director, 1 secretary to art director, 1 music director, assistant and secretary, 4 program writers and 2 secretaries, 12 program producers and 12 secretaries and script readers, 11 stage managers or assistant producers, 8 studio hands, 4 prop men, 3 announcers (male), 3 announcers (female), 1 motion picture cameraman and assistant, 1 film editor, 1 staff photographer, 3 receptionists-telephone operators, 3 receptionists, 3 guards.

Capital's application estimated a staff of 40 to handle 21½ hours studio, 3¾ hours film, 2¾ hours mobile pickups. Particularly interesting was their proposal to form their own stock company of five actors.

#### Minimum Technical Set-Up

In analyzing these figures, we offer the following guide, which with careful planning should carry a station through the required 28-hour week.

An analysis of the technical equipment of a station will reveal the type and number of personnel needed to service this equipment. A well-rounded, adequate staff would include

- 1 Chief Engineer
- 2 Supervisory Engineers
  - Master video control operators
  - Master audio control operators
- 2 Studio video control operators
- 1 Studio audio control operator
- 2 Studio cameramen
- 2 Mike Boom operators
- 1 Sound Technician
- 1 Lighting Engineer
- 1 Projectionist
- 1 Mobile cameraman

Same personnel can be used to operate the equipment needed for mobile pick-ups and film offerings. In addition, some stations will probably require a turntable operator to dub in sound effects and musical background.

#### Programming Department

As stated previously, the scope and type of programming that stations plan will have very decided effects on personnel requirements. If the station plans to concentrate on films for the bulk of their fare, the programming staff can be cut to the bone. Other stations will depend, to a large degree, on such outside sources as advertising agencies and television production units to provide them



with video entertainment. But most of the applicants are counting on their staff for the bulk of their programming output.

A well-equipped programming department naturally must be headed by a program director, capable of forming a diversified staff and with a knowledge of outside sources of program possibilities. Above all else he must be a showman and must have a completely rounded experience in the entertainment field. The full responsibility for program policy, which will be reflected in audience reaction to the station, is dependent upon his know-how.

### Outside Pick-Ups

Where outside pick-ups are planned, whether by mobile equipment or the station's own motion picture camera crew, a field program director is needed to coordinate this part of the schedule, and to survey all possible contacts and agencies whose cooperation is needed for well-rounded coverage of special events, sports pick-ups, etc. Even in this type of coverage, which can't be rehearsed, the director of the department must be thoroughly familiar with the sport so as to plan camera positions, technical set-ups, etc. In televising special events, as much before-hand knowledge as possible should be secured. Television is more than showing things as they happen. Plans must be made to catch the *right* things as they are happening.

### Film Editor

As films will be included in almost every programming schedule, a film editor will be necessary to make the selection of film material. This job requires a great deal of experience as a good part of the time will be spent out in the field contacting sources and viewing films for selection. In addition, film sequences will often be integrated with live productions to give them greater authenticity. This will require the building of a well-rounded film library for quick reference when such cut-ins are needed. Still another task, and a difficult one, requiring much experience, is the editing of films taken by the station's own camera crew. This must be skillfully done (and in the least possible time), if the resultant film is to be a smooth, interest-holding show.

### Producer-Director

Upon the producer or director depends the final video translation of the show. Here again you need people with a high degree of showmanship, plus a knowledge of television techniques, and of the scope and limitations of the camera. You need people aware of visual tricks, who can get the most out of every camera shot and out of every scene. Good idea might be in specialization of types of production — assigning one director to news and special events, another to dramatic shows, another to music and dance programs. Interchangeable with his duties could be the responsibility for selecting musical backgrounds for all programs.

The number required in this category is again closely tied in with the programming aims of the individual station and the type of show they will present. With the amount of rehearsal time necessary for a smooth show, economizing on this end of the programming schedule will show up where it hurts most — on the home viewers' screens.

All scripts, except those written especially for television, require adaptation to the medium. Script writers must know television techniques, must understand the limitations of the camera, the time required for costume or make-up changes, the problems of settings, studio space limitations, etc. It is their job to turn out a script that

permits the continuous performance necessary to television.

A studio director, responsible for stage business, scheduling rehearsal facilities, stage settings and the other problems related to smooth, behind the scenes operation, is also included in personnel lists. Here again the number of assistants depends on the individual set-up of the station.

A scenic designer is needed to plan the designs and stage settings and to work with the producer in executing the staging so as to tie in with the action of the script. Dependent again upon the scope of programming would be the number of assistants necessary to paint flats, etc. At least one property man and a carpenter, plus two stage hands would be required to set up and store the sets. As programming increases, animators, costumers, make-up artists will probably be added. A list of suggested personnel follows:

- Executive program director
- Studio director and assistant
- Film editor
- Field program director and assistant
- Producers — Directors
- Writer
- Scenic designer
- Property man
- Carpenter
- Stage hands
- Announcer

That this end of the staff will grow is certain, for stations will develop their own additions as programming scope increases.

### Business Department

Needless to say, the success (other than artistic) of a station will depend on its ability to return a profit. Though the programming and technical departments can contribute by skillful and economical operation it is up to the business department to bring in the revenue. Heading this very important task is the Sales Manager whose function is to sell his station's time. It is his job to see to it that those who control the advertising dollar (advertising agencies, company executives, etc.) are made aware of the value of the medium he has to sell. When the day of large television audiences is here, he will be fortified with details as to his coverage, etc. which means he will need the assistance of research, publicity and press personnel.

The business set-up in television differs little from other fields. A station manager is needed to handle the details of operation, and must hit a course between the artistic needs of the medium and the cold dollars and cents involved. Salesmen, accountants, typists, secretaries, guards, chauffeurs, ushers or office boys, are all necessary to the paper work of any station.

### Common Sense

It's just plain common sense that the better staffed a station is, with personnel qualified for the jobs they hold, the more popular their call letters will become. The ultimate success of a station will rest with the audience — and the audience judges its standards solely by the shows which they will see on their television screen.

Prospective television operators must realize that programming is show business — visual show business. In most cases, personnel will have to be drawn from the theatre and Hollywood. The technical operations must be in the hands of capable engineers, and the business end handled by good administrators. All three are mutually dependent upon the performance of each other.



# TELEVISION OUTLOOK IN DETROIT

Ninth in a series of articles on video applicants in major cities. Due to recent withdrawals, Detroit only has four bidders for its five channels.

By **GILBERT WINFIELD**

**"THE ARSENAL OF DEMOCRACY"** during the war, and America's fastest growing city, Detroit has a population of over two million. Six local organizations, with an eye to that large number of consumers, applied for the five channels which the FCC has allocated. Now, however, with the hearings set to decide the final winners, International Detrola Corporation and WJR, The Goodwill Station, withdrew their applications. This leaves but four applications for the five channels -- and the FCC is spared the headache of making a decision.

Interestingly enough, all four of the applicants in Detroit are local interests, though some do have ties with other organizations. The Evening News Association; the King-Trendle Broadcasting Corporation, the Jam Handy Organization; United Detroit Theatres are all located in Detroit.

## The Evening News Association

Address—615 West Lafayette Boulevard, Detroit, Mich.

### Estimated Costs

1. Vis. transmitter	\$22,000
2. Aural transmitter plus tubes	13,750
3. Antenna System	10,000
4. Studio Equipment	8,800
5. Studio Lighting	
6. F & M Monitors	3,500
7. Land	
8. Building	
9. Other installation	5,000

Estimated Total Costs \$63,050

Equipment—General Electric (except antenna system)

Financing—existing capital

Cost estimate by—G.E. estimates

Channel—#1

Kilocycles—50,000-56,000

ESR—2480

Antenna

Height, sea level—1235 feet

Height, ground level—631 feet

Location—90 foot mast on Penobscot Building, Detroit

Power, aural and visual—aural—2 kw.; visual 4 kw.

Population—3,755,920

Location of Studio—Penobscot Building

Engineering Consultant—Ring and Clark, Washington

Misc.—Operates WWJ, AM, and WENA, FM, in Detroit.

Publishes Detroit Daily News.

## The Jam Handy Organization

Address—2821 East Grand Building, Detroit, Michigan

Officers—Jamison Handy, President

### Estimated Costs

1. Vis. transmitter	\$25,000
2. Aural transmitter plus tubes	15,000
3. Antenna System	(included in items 1 and 2)
4. Studio Equipment	50,000
5. Studio Lighting	10,000
6. F & M Monitor	(included in items 1 and 2)
7. Land	
8. Building	
9. Other item	
Field Equipment	35,000

Estimated Total Costs \$135,000

Operation Costs per month—\$12,500 (monthly revenue is estimated at \$15,000)

Financing—\$100,000 existing capital

Cost estimate by—applicant, based on RCA estimates

Equipment—RCA

Channel—#1

Kilocycles—50,000-56,000

ESR—1940

Hrs. per wk. of operation—4

2 hours studio production)

Breakdown—no outside pick-up )

2 hours film )

Transmitter location—1249 Washington Boulevard, Detroit, Michigan

Power, aural and visual—aural—3 kw.; visual—4 kw.

Population—2,215,400

Size of area—primary, 318 square miles; secondary, 1670 square miles

Engineering Consultant—Applicant's engineers

Misc.—Applicant is engaged in motion picture film, camera and projection equipment—operation and rating of theatres.

## King-Trendle Broadcasting Corporation

Address—1700 Stroh Building, Detroit, Michigan

Officers—George W. Trendle, President

Equipment—RCA

Channel—#2

Kilocycles—60,000-66,000

ESR—1548

Antenna

Height, sea level—1029 feet

Height, ground level—409 feet



Location—present standard band WXYZ lattice tower  
 Transmitter location—15500 Joy Road, Detroit, Michigan  
 Power, aural and visual—aural—3 kw.; visual—4 kw.  
 Population—2,272,433  
 Size of area—483 square miles—primary; 1920 square miles—secondary

Location of Studio—8415 East Jefferson Avenue, Detroit  
 Lawyers—Segal, Smith and Hennessey, Washington

**United Detroit Theatres Corporation**

Address—1600 Stroh Building, Detroit, Michigan

Officers—E. J. Hudson, President

Ownership—controlling stock (74.35%) owned by Paramount Pictures—remaining 25.65% owned by Balaban & Katz (Paramount Pictures subsidiary)

**Estimated Costs**

1. Vis. transmitter	\$30,000
2. Aural transmitter plus tubes	20,000
3. Antenna System	15,000
4. Studio Equipment	60,000
5. Studio Lighting	5,000
6. F & M Monitors	1,200
7. Land	
8. Building	
9. Other item	
Engineering fees and construction	50,000

Estimated Total Costs \$181,200

Operation Costs per month—\$10,000

Financing—existing capital

Cost estimate by—DuMont Laboratories

Equipment—DuMont

Channel—#4

Kilocycles—78,000-84,000

ESR—300

Hrs. per wk. of operation—16

Breakdown—outside pick-up —28 hours)  
 studio production—60 hours) monthly  
 film — 8 hours)

**Antenna**

Height, sea level—872 feet

Height, ground level—270 feet

Location—12 story brick and steel office and theatre building

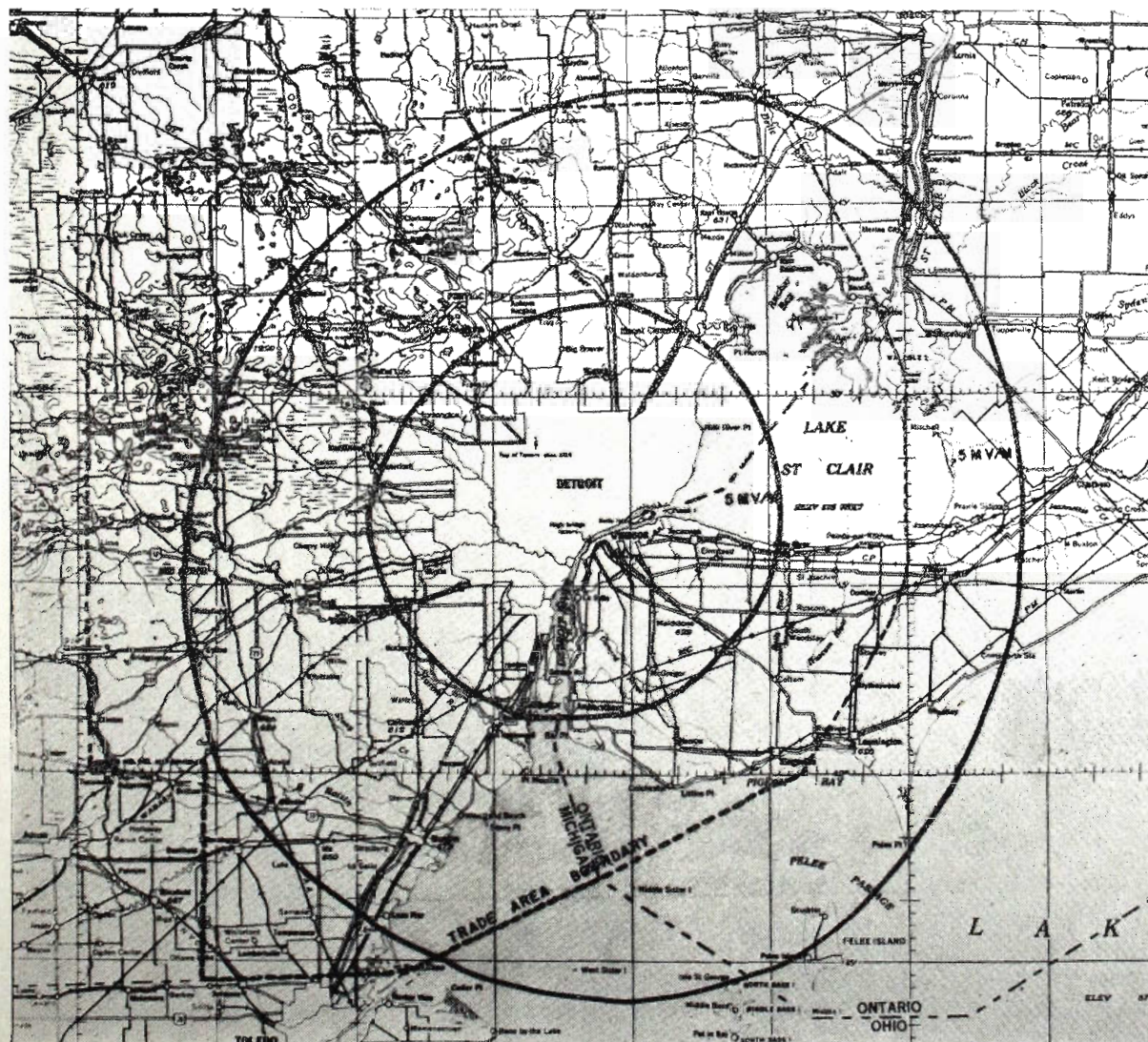
Transmitter location—2111 Woodward Avenue, Detroit, Michigan

Power, aural and visual—aural—2 kw.; visual—4 kw.

Location of Studio—2111 Woodward Avenue, Detroit

Misc.—Balaban & Katz and Television Productions, Inc. (also a Paramount subsidiary) operate W9XBX, WBKB and W6XYZ, Los Angeles. W9XBK and WBKB, Chicago.

Black lines indicate both the primary and secondary coverage in the Detroit area which can be given by a 25 kw station, assuming that the antenna is 500 feet high and located in the center of the business district. Dotted lines indicate the trading area. Contour map, courtesy of Allen B. DuMont Laboratories, Inc.





# Bamberger Washington Presentation

Here is how one applicant presented his plans and qualifications for a station before the Commission.

An informative guide to aspirants for television stations is this digest of the Bamberger testimony presented before the FCC in the recent hearings to choose the Washington, D. C. stations.

Bamberger's testimony was contained in 112 pages bound and indexed. It was divided in these seventeen sections:

Section	Description	Index
I.	R. H. Macy and Company, Inc. and Subsidiary Companies Consolidated Balance Sheet.	
II.	Bamberger Broadcasting Service, Inc. Combined Balance Sheet.	
III.	Radio Stations Owned and Operated by the Applicant.	
IV.	Organization Chart for Television Operations.	
V.	Operating Expenses.	
VI.	Cost of Equipment, Construction and Installation.	
VII.	Transmitting Station and Tower, Architects' Plans, Sketches.	
VIII.	Engineering Department Technical Equipment Chart.	
IX.	Engineering Department Organization Chart.	
X.	Technical Personnel, Engineering	
XI.	Qualifications of Technical Personnel.	
XII.	Program Department Organization Chart.	
XIII.	Chart—Classified Program Breakdown of Weekly 28-hour Schedule.	
XIV.	Program Schedule. Monday through Saturday.	
XV.	Television Programs Presented to Metropolitan New York and Schenectady Audiences.	
XVI.	Television Zoning Publicity.	
XVII.	Technical Data, Map Showing Coverage and Population.	

To prove their financial strength, complete balance sheets for both R. H. Macy, the parent company, and its subsidiaries, and the Bamberger Broadcasting Company were presented. The consolidated balance sheet of R. H. Macy and its subsidiaries, as of July 28th, 1945, revealed a total stock and surplus worth \$62,348,200. The combined balance sheet of Bamberger showed a total capital and surplus on December 29th, 1945 of \$1,184,573.

## Operating Expenses

Interesting was Bamberger's estimated annual operating expense of \$547,308 based on a 28-hour programming week. The estimate was divided into the following six categories:

### Operating Expense — Summary First Year of Operation (28 Hours of Programming per Week)

Item 1 — Selling .....	\$ 6,500	
2 — Publicity .....	3,500	
3 — Promotional Advertising .....	3,000	
4 — Technical Department .....	174,320	
5 — Program Department .....	312,860	
6 — Administration .....	47,128	
<b>Total .....</b>		<b>\$547,308</b>

#### Item 1 Selling Expense

Salary .....	\$6,500	
<b>Total .....</b>		<b>\$6,500</b>

#### Item 2 Publicity Expense

Salary (Clerical) .....	\$2,000	
Overhead .....		
Program Printing .....	1,500	
<b>Total Publicity .....</b>		<b>\$3,500</b>

#### Item 3 Promotional Advertising Expense

Promotional Advertising .....	\$3,000	
<b>Total Advertising .....</b>		<b>\$3,000</b>

#### Item 4 Technical Expense

<b>Salaries (See Engineering Organization Chart) —</b>		
Asst. Chief Engineer, 1 .....	\$ 8,000	
Asst. Supervisor — Transmitter, 1 .....	6,700	
Asst. Supervisor — Studios, 1 .....	6,700	
Asst. Supervisor — Technical Facilities, 1 .....	6,700	
Asst. Supervisor — Field Department .....	6,700	
Transmitter Engineers, 2 at 4,100 .....	8,200	
Video Control Engineers, 6 at 4,100 .....	24,600	
Video Camera Men, 4 at 4,100 .....	16,400	
Light Control Engineers, 2 at 3,000 .....	6,000	
Audio Control Engineers, 3 at 4,100 .....	12,300	
Film Control Engineer, 1 .....	4,100	
Maintenance Engineer, 2 at 4,100 .....	8,200	
Chauffeur, 1 .....	3,000	
Secretary, 1 .....	1,820	
Clerical, 4 at 1,600 .....	6,400	
<b>Total Salaries .....</b>		<b>\$125,820</b>
<b>Overhead —</b>		
Light, Heat and Power .....	\$ 9,000	
Vacuum Tubes .....	3,500	
Engineering Supplies .....	3,000	
Professional Services .....	1,000	
Repairs and Maintenance .....	2,000	
Transmission Lines* .....	30,000	
<b>Total Overhead .....</b>		<b>\$ 48,500</b>
<b>Total Technical Expense .....</b>		<b>\$174,320</b>

#### Item 5 Program Department Expense

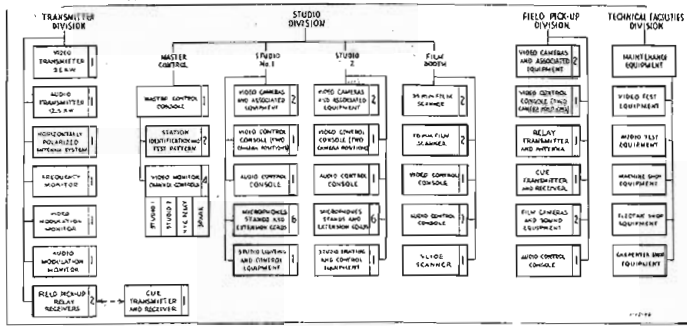
<b>Salaries (See Program Department Organization Chart)</b>		
Director of Programs .....	\$ 7,500	
Production Director, 2 at 3,900 .....	7,800	
News Director .....	3,900	
Special Features Director .....	3,900	
Asst. to News Director .....	1,820	
Asst. to Special Features Director .....	1,820	
Asst. to Production Directors, 2 at 1,820 .....	3,640	
Writer, 2 at 2,600 .....	5,200	
Program Coordinator .....	5,000	
Art Director .....	3,900	
Sound Effects Technician .....	2,600	
Motion Picture Cameraman .....	3,900	
Asst. Motion Picture Cameraman .....	2,600	
Film Laboratory Technician .....	2,600	
Scenic Design Assistant .....	2,600	
Scene Shifter .....	1,820	
Costume and Make-up Assistant .....	2,600	
Animation Assistant .....	1,820	
Ex. Secretaries, 2 at 1,820 .....	3,640	
Clerical, Typists, etc., 6 at 1,300 .....	7,800	
<b>Total Salaries .....</b>		<b>\$ 76,460</b>
<b>Program Cost</b>		
(Hours per week — 28		
Weekly Cost \$4,200) .....	\$218,400	
<b>Total Program Cost .....</b>		<b>\$218,400</b>

\* Estimated yearly cost of the New York, N. Y. to Washington, D. C. coaxial transmission line, \$60,000. This cost to be shared equally by both stations.









Engineering Department Technical Equipment

Programming plans were outlined in ten pages and included a breakdown chart of a weekly 28 hour schedule and descriptions of each program throughout the week.

ITEM NO.	PROGRAM CLASSIFICATION	NUMBER OF PERIODS PER WEEK	LENGTH OF EACH PERIOD	TOTAL TIME PER WEEK	PERCENTAGE OF TOTAL TIME
1	OFFICIAL WEATHER REPORTS	7	5 MIN.	35 MIN.	2.07
2	EDUCATIONAL	6	15 MIN.	1 HR. 30 MIN.	5.36
3	SHOPPING SERVICE	6	15 MIN.	1 HR. 30 MIN.	5.36
4	HOME ECONOMICS	6	15 MIN.	1 HR. 30 MIN.	5.36
5	COMMUNITY SERVICE	6	15 MIN.	1 HR. 30 MIN.	9.83
		3	25 MIN.	1 HR. 15 MIN.	
6	NEWS	13	15 MIN.	3 HRS. 45 MIN.	13.40
		1	30 MIN.		
7	SPORTS	3	25 MIN.	1 HR. 15 MIN.	4.47
8	SELF EDUCATIONAL	6	30 MIN.	3 HRS.	10.71
9	EDUCATIONAL FILMS	6	30 MIN.	3 HRS.	10.71
10	CHILDRENS SHOWS	1	45 MIN.	45 MIN.	2.68
11	ENTERTAINMENT AUDIENCE PARTICIPATION QUIZ SHOWS - DRAMA MUSICAL VARIETY - COMEDY	1	25 MIN.	7 HRS. 25 MIN.	26.48
		12	30 MIN.		
		1	1 HR.		
12	RELIGIOUS SERVICES	1	1 HR.	1 HR.	3.57
TOTALS		79		28 HRS.	100.00%

**ADDITIONAL PROGRAMMING**

MAKING TELEVISION SERVICE AVAILABLE OVER AND ABOVE THE REGULAR SCHEDULE AS EVENTS OF PUBLIC INTEREST OCCUR.

**FROM WASHINGTON**

**FROM NEW YORK**

- |  |  |
|--|--|
| <p>13 <b>GOVERNMENTAL FEATURES</b><br/>EVENTS OF NATIONAL SIGNIFICANCE SUCH AS:<br/>A - PRESIDENTIAL INAUGURATIONS AND SPEECHES<br/>B - CONGRESSIONAL HEARINGS<br/>C - GOVERNMENTAL MEETINGS<br/>D - ADMINISTERING OATH OF OFFICE TO HIGH OFFICIALS. (TO BE PRESENTED TO N.Y. AUDIENCES ALSO)</p> <p>14 <b>SPECIAL FEATURES</b><br/>A - TELEVISIONING OF PAGEANTS AND FESTIVALS<br/>B - DIPLOMATIC RECEPTIONS<br/>C - COMMEMORATIVE EVENTS. (TO BE PRESENTED TO N.Y. AUDIENCES ALSO)</p> <p>15 <b>EDUCATIONAL FEATURES</b><br/>FACILITIES WILL BE MADE AVAILABLE TO EDUCATIONAL ORGANIZATIONS FOR SCHOOL AND HOME PRESENTATIONS.</p> | <p>16 <b>DRAMATIC PRODUCTIONS</b><br/>MAKING AVAILABLE THE OUTSTANDING TALENT FACILITIES OF NEW YORK TO WASHINGTON.</p> <p>17 <b>SPECIAL FEATURES</b><br/>BRINGING TO WASHINGTON SUCH OUTSTANDING EVENTS AS:<br/>A - INTERSECTIONAL SPORTS CONTESTS<br/>B - CELEBRITY ARRIVALS.<br/>C - PUBLIC DEMONSTRATIONS.<br/>D - PARADES AND CONVENTIONS</p> |
|--|--|

Classified Breakdown of Weekly 28-Hour Schedule

Here's what Bamberger proposes for a typical Monday to Saturday schedule:

**Daytime Program Schedule**

- 11:00 - 11:15 A.M.** **Home Economics** **FOOD FACTS** A real "what-to-buy," "how-to-cook-it" "Tele-Menu" for today. Food economics, dietetics and cooking school all rolled into one as a public service to Washington's housekeepers. (Teletested)
- 11:15 - 11:30 A.M.** **Shopping Service** **LET'S GO SHOPPING** - Milady Washington in the comfortable surroundings of her own home, can browse through specially selected items daily. Brief demonstrations will be given together with full information on prices, delivery, and ordering instructions. Here, truly, Washington's homemakers will often get a more complete and detailed analysis of an item than they would at a crowded store counter. Best of all, if you see something you want - just telephone. Our trained shoppers will place your order.

**11:30 - 12:00 Noon** **Self Educational** **THE WASHINGTON WOMAN'S WORLD** - A daily fashion show - how to dress, how to care for Junior, how to sew, knit, crochet, serve tea, play bridge, entertain, decorate your home, and other useful subjects, together with personality interviews. (Teletested)

**12:00 - 12:30 P.M.** **Educational Film** **FILM FACTS** - Official travel film from embassies, educational and documentary films from the Department of Agriculture, the U. S. Office of Education, etc. (Teletested)

**12:30 - 12:45 P.M.** **Educational** **LET'S VISIT** - A Cook's tour of Washington - for Washingtonians. Yes, "Let's Visit" every place and everyone of interest from the Mint to the White House, from Government to Foreign Embassy Officials. Sure you live in Washington, but chances are you'll see places and faces you've never seen before through the ever-roving eye of our "Let's Visit" television cameras.

**12:45 - 1:00 P.M.** **News** **NEWS AND THE MEN WHO MAKE IT** - Actual telecasts of Washington news of a broad and inclusive nature in which there will be such pertinent and entertaining features as officialdom in action, combined with animated maps and commentary, plus still and motion pictures featuring news of national and international interest.

**Nighttime Program Schedule**

**7:30 - 7:45 P.M.** **News** **WASHINGTON TELEGROUND** - News "round-the-nation" and "round-the-world," still and motion pictures, animated maps and pictographs combined with occasional live on-the-spot inserts concerning local Washington affairs, accompanied by accredited commentary - sports included.

**7:45 - 8:00 P.M.** **Community Service** **IT'S UP TO YOUTH** - Pro and con views of Washington High School and College students on problems of the day.

**8:00 - 8:30 P.M.** **Entertainment** **FEATURE LIVE DRAMATIC PRODUCTIONS** such as:  
*Brownstone Theatre* - The famous plays of yesterday. (Teletested)  
*The Sealed Book* - Astounding tales of the weird and supernatural. (Teletested)  
*Special Investigator* - Modern mysteries with a message and fast-paced action solution.  
*Famous One-Act Plays* - The best the theatre has to offer in comedy, love, adventure, and melodrama. (Teletested)  
*Just Five Lines* - The story behind the story that is buried in "Just Five Lines" of type.  
*Leave It To Mike* - Farce, comedy, drama - the misadventures of Mike McNally. These and other fine live dramatic productions will originate from our New York studios.

**8:30 - 9:00 P.M.** **Entertainment** **FEATURE LIVE VARIETY PROGRAMS** such as:  
*The Better Half* - A quiz to answer that eternal question - "Which is the Better Half - the husband or the wife." (Teletested)  
*Deadline Dramas* - Out of the mailbag comes a situation to be brought to a conclusion by an extemporaneous dramatization by our cast who are permitted one minute to prepare a complete story.  
*Dress Rehearsal* - Behind the scenes in an actual rehearsal of a forthcoming production.  
*Twenty Questions* - The old childhood game of "Animal, Vegetable or Mineral" in modern dress, board of experts and all.  
*Stairway to the Stars* - Amateurs get a chance to act a part with their favorite stars of stage, screen and radio. Winners



receive professional television engagements. *Opinion Requested*—A forum type of show in which the public asks a question on a problem of the day and the experts answer to the accompaniment of some heckling by the audience who have the right to disagree. These and other live variety programs will originate from our New York studios.

**9:00 - 9:45 P.M.**  
(or later)  
**Community Service**

**WASHINGTON BY NIGHT**—The public knows only by report the many important and interesting events that are available to Washingtonians every evening. This program will serve the public by bringing such happenings into their homes. The variety is great. Many types of sports events, including basketball, hockey, boxing, wrestling, and bowling, to name a few, may be telecast. Important meetings may be translated into the home. Social functions, both official and unofficial, will help to round out the multi-colored picture of the Capitol's nights. This series will be timely, instructive, entertaining, and often of genuine service to people in their daily lives.

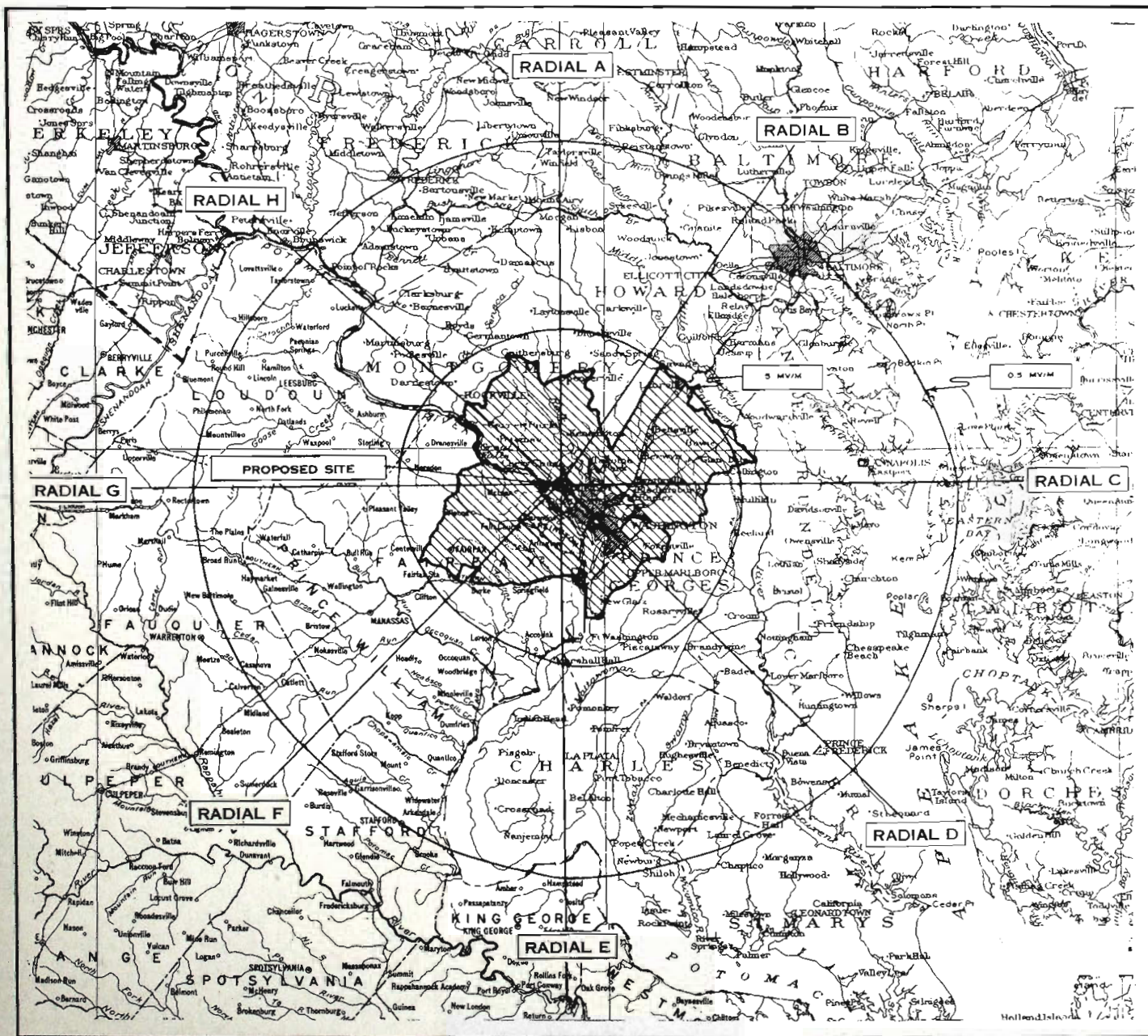
**9:25 - 9:30 P.M.**  
**Official Weather Report**

**OFFICIAL WEATHER REPORT**—Useful meteorological information, presented with animated charts, making up a production that is not only of immediate service to every listener but also educational and entertaining.

Bamberger then gave a list and description of all programs that they produced over WRGB (GE) and WABD (DuMont). And to make sure that the Commission knew of all their efforts to secure permission from the zoning board to erect a television transmitter and tower, Bamberger included reprints of newspaper stories describing the zoning hearings.

Finally they presented a series of maps and graphs prepared by George C. Davis, consulting radio engineer, showing the computed contours for their proposed station. Planned coverage showed that with the 5000 microvolts/meter contour, an area of 975 square miles and a population of 907,776 would be served; with 500 microvolt/meter contour, this is increased to 4,350 square miles and a population of 1,145,079.

Contour map showing coverage which will be given by the Bamberger station in Washington.





# Operating a Small Local Station

Information on providing a desirable programming service, while keeping overhead costs, personnel and equipment requirements down to a minimum.

By **SAMUEL H. CUFF**  
Station Manager, WABD

**A**LTHOUGH there have been no applications filed yet for a community television station, from the long range point of view there probably will be many such stations, with programming content keyed to attract specialized groups.

However the majority of tele stations who start operating within the next few years will find themselves in much the same position as the later community stations will. Under the present FCC rulings, a community station is defined as a local operation under controlled power and/or antenna height, limited in coverage so that it does not conflict with similar community stations in nearby areas. Its function is to serve a clearly defined community.

In these pre-network days, with only Washington to New York to Schenectady linked up, the so-called metropolitan stations are limited to the same function.

Thus many of the problems which will apply strictly to community stations in the future are now common to all stations.

## Planned Programming

Under the current FCC rulings, tele stations will have to operate a minimum of 28 hours a week, at least two hours each day, in order to maintain their franchise. As a business investment and a service, programming for such a station must be carefully and thoroughly planned so that it:

1. Performs a valid and desirable service in its community.
2. Has rehearsal and broadcasting time scheduled to fit practical conditions under which the facilities of the station may be operated and the requirements of programming met.
3. Holds its audience against competition of other television stations and other types of entertainment available to the home.
4. Gives advertisers generous returns from their investments.

The circumstances under which the small metropolitan or community station is operated will largely determine the nature of its programs. If the broadcaster is in a large city competing with large metropolitan stations, for example, then his greatest advantage would probably come from throwing strictly community interest material against the general programming offerings of the larger rivals.

Local news of all sorts should be brought to the audience through this station's facilities. Educational subjects would be a fairly substantial portion of the station's fare because of the great community good will that such program matter has when prepared in an engrossing, and entertaining manner. Films, too, will necessarily be used here to equalize the strength of this station in holding audiences despite the opposition of larger stations serving the area. A movie using the more prominent names in the entertainment world will be stronger than run-of-the-mine local talent in backing the more elaborate and expensive programs most likely to be served up by the larger local stations.

If, on the other hand, the broadcaster has no competition from other stations, his planning must be considerably altered. It must be altered to the extent that he assumes the responsibility of offering audiences a more complete television service, with national coverage as well as local. It may be modified because he is released from the expensive need of competing with "name" material to woo his audience. This station also has the job of bringing local events and personalities of importance into the television homes of its region. It serves substantially as a marketing instrument of local merchants, but it also supplies national advertising material, to audiences. It is a lively form for audience participation shows and its film programs may be selected to fit the particular market's taste with comparative disregard for other factors the rival-beset station must consider.

## Hypothetical Schedule

I have asked Louis A. Sposa, Program Manager of WABD, to present a hypothetical day's schedule of a small station with a single studio broadcasting for four hours. Factors that he considered in this schedule are the desirability of accomplishing the necessary rehearsals and broadcasts within an eight-hour working day and the allowance of time for changing sets. For this, he chose two programs requiring rehearsals, two that are more spontaneous in presentation, say an interview with celebrities and an audience participation program, and a number of film shows.

12 noon	to 3 p.m.	Rehearsal for program No. 1
3	to 4 p.m.	Strike set for No. 1, set up for No. 2 .....
4	to 7 p.m.	Rehearsal for program No. 2
7	to 7:30 p.m.	Broadcast of program No. 2
7:30	to 8:30 p.m.	Strike set for No. 2, set up for No. 1 while feature film is being shown .....
8:30	to 9 p.m.	Broadcast of program No. 1
9	to 9:30 p.m.	Set up for No. 3 (audience participation) while film short is being shown.....
9:30	to 10 p.m.	Broadcast of program No. 3
10	to 10:30 p.m.	Set up for No. 4 (interviews) while film short is being shown .....
10:30	to 11 p.m.	Broadcast of program No. 4

The reason for putting the two programs requiring rehearsal ahead of the two that do not is that chances are these are the more elaborate of the programs offered that evening and they are presented at the time of the largest and most profitable audience. Also they are the ones most likely to require the most involved settings and this system permits the installation of such sets with a minimum of time lag.

## Cost Factors

Operating costs and revenue to be derived from the television station cannot be set down in any dogmatic

(continued on page 18)



# DRAMA'S PLACE IN TELEVISION

By HARVEY MARLOWE  
American Broadcasting Company

ONE-ACT plays will certainly now attain a new-found importance and final recognition in the television medium. Until lately, this type of play was almost solely confined to the amateur stage, although a few sporadic attempts have been made to bring an evening of it to Broadway. The public has made little or no effort to promote their showing for the stigma of amateur presentation has too long been associated with them.

One of radio's great contributions was to begin to indicate the value and importance of the half-hour dramatic vehicle. It was left to such writers as Corwin, Obler and others to really make the transition from stage to radio in a truly individual style. It was men like Corwin and Obler who first realized that it wasn't sufficient merely to transpose a play from stage to radio, but that there were both advantages and disadvantages in this new medium. It was only after such men had begun to write specifically for this new art that the radio thirty-minute play came into its own.

All of this indicates one thing . . . that the sooner we realize this, and begin to write for television as a completely new art medium with a full understanding of its limitations and advantages today, only then will we be materially aiding the pioneering of television programs.

A number of adaptations of three-act plays have already been presented on television . . . some successfully and others that left much to be desired.

Certainly television should not be limited to half-hour dramatizations . . . and there is no doubt that there will be a great demand for adaptations of successful Broadway shows.

It is a lazy way out, presenting an already successful production in another guise. Even in an excellent adaptation the producer limits himself to a vehicle that was never originally intended for television. Surely, the vast, and as yet so little explored, potentialities of television should be stimulating enough and worthy enough of a completely fresh start.

While television offers many advantages to a producer, it also presents a great many disadvantages to the viewer, whose habits have been largely attuned to radio which permitted a certain amount of movement around the house and a minimum of concentration . . . television demands a much closer attention. A three-act drama may be placing too much of a strain on the attention and concentration of the television audience.

## One-Act Plays

However, it is the one-act drama with which I am primarily concerned, not adaptations . . . and the serious exploitation of this, as yet, embryonic art.

One-act plays have long been the core of many of the three-act plays produced on Broadway. A one-act play is like a Readers' Digest condensation of a long and thinly drawn-out article. There is no room for irrelevancies. The time limitations make for a directness and conciseness which, unfortunately, is sometimes lacking in a longer work. However, in a one-act drama, all the force and power of a playwright's imagination can be impacted into the thirty minutes of playing time.

Although each medium . . . stage . . . screen . . . radio . . . and television . . . have certain limitations to contend with, each in turn has advantages over the other. There must be an exploitation of the advantages of television if that medium is to realize its potentialities.

How does the new theatrical baby stand in comparison to the granddaddy of the theatrical arts . . . the legitimate stage? The Broadway stage seems at the present time, to be almost totally lacking in ingenuity and invention. It is bound with a commercialism which deals only with the known formula for success . . . whereas television is growing with the youthful vigor of experiment.

Technically, the newer medium has answered for itself some of the stage's oldest problems. In the legitimate theatre, the matter of changing sets has usually caused some delay; breaking up the continuity of the story, as well as the suspense and the interest, by projecting its audience back into reality as the lights go up for intermission. A few moments of intermission is long enough to give an audience its chance to think along logical lines once more, and a play which should have been judged as a whole, is examined piecemeal and usually found wanting.

## Continuous Action

In television, this break-up is avoided. Even in the smallest of studios, six or more sets can usually be rigged up. Instead of having a curtain drop in front of a play's action, or calling an intermission for a few minutes, the camera simply pans from one set to another, thus insuring continuous action, and no interruption to any suspense that may have been built up.

One of the major cost factors in both movies and the theatre has been the elaborate and pretentious sets. This

Harvey Marlowe (in white shirt) is shown at the controls in the WAB studio. Paul Mowery, television director of ABC, is standing at the right.





has been necessary due to the all-encompassing eye of the movie camera and the wide expanse of stage from proscenium to proscenium which must be furnished in detail. However, in television, the small size of the screen has demanded for successful production, the use of at least eighty per cent of close-ups, thus immediately cutting down the need for huge sets that the movies and theatre have employed.

### Radio vs. Television

How does radio stack up against television? Television will merely supplement radio, never completely supplant it . . . television has its own advantages, but it can also borrow most successfully from radio. Radio, being such a highly imaginative art, the power of suggestion has frequently been used to startling effect on its audience. The comparative elements here are sound plus sight. Radio has at times, made extremely effective use of sound

and the imaginative pictures that a voice can conjure up in the mind of the listener. Sound effects have been used to create astonishing illusions. Radio has been so completely chained to sound, however, that its engineers have never allowed more than a few seconds of silence on the air. On the other hand, television will utilize silence to build and greatly enhance moments of suspense and effect.

The screen and television seem to be the most closely related of all the theatre mediums. Present indications point to their furnishing each other with material. Their basic difference seems to lie in the problems of distribution, in cost and in time. From the technical limitations of television, it would seem that the one-act play is best adapted to its medium, while the longer work belongs to the screen. Is it not conceivable that in time, the movies may find in the shorter television drama a source of material and a proving ground for its own longer productions?

## Operating a Small Local Station (continued from page 16)

manner. Payrolls, power costs and sustaining program costs are different with almost every station. The various stations will need or desire facilities of varying scope. As remote pick-up equipment and networks become increasingly popular, new factors will affect the validity of any figures chosen at this point. Therefore, the following cost and revenue estimates must necessarily be considered little more than a general idea of the economics affecting the small metropolitan or community station.

Let's first consider the equipment involved and their approximate pre-war prices:

Two DuMont studio cameras with push dollies and DuMont studio control desk.....	\$ 23,000.00
DuMont master control board .....	35,000.00
Studio lighting and audio equipment .....	10,000.00
35mm special film projector .....	6,000.00
16mm special film projector .....	2,000.00
DuMont film pick-up camera .....	3,000.00
DuMont transmitter 5 kw peak video and equivalent peak audio .....	36,000.00
Suitable antennae with supporting tower located on same building .....	7,500.00
Spares and test equipment .....	13,000.00
Sub Total .....	\$135,500.00

Apart from the technical equipment required, assuming that the prospective broadcaster already has made arrangements for the necessary land and building to house operations, there are certain very flexible equipment and installation costs to be considered. Figures on these will vary appreciably in different cities, but a hypothetical set might run:

Installation of television broadcasting equipment .....	\$10,000.00
Structural alterations, electrical wiring, studio soundproofing, etc. ....	15,000.00
Fireproofing of film projection room .....	1,500.00
Furniture, fixtures and decoration .....	10,000.00
Sub Total .....	\$36,500.00

These two sub totals bring the total initial capital investment to \$172,000.00.

These figures, we must stress heavily, represent a hypothetical operation, but they do serve as a starting point for the prospective station operator's thinking along expense-and-revenue lines. Some may need more film facilities. Some may have sufficient local outdoor activity

to necessitate remote pick-up equipment. A second studio might prove important in a fairly large city. The figures and equipment must be selected to fit the individual set of circumstances.

### Personnel Required

To operate on the schedule described previously, with the equipment we described, would require a studio and technical staff of about 12 persons. Studio personnel, in some cases, could be used on mobile equipment if that were added to the facilities, since remote and studio programs would be aired at different times.

Revenue would come from two sources. The first is rehearsal time, the rate per hour to be fixed on a ratio with cost of operating the studios, paying the crews and paying for capital invested in the studio.

The second charge is for air time. This is contingent on circulation. It will not correspond with such charges for radio and for printed media, however. Factors foreign to these other media enter in when considering television, and many of these concerning the older media apply to television in a slightly revised form. Among such factors are:

1. Number of listeners per set.
2. Average income of the audience available in the community.
3. "Pulling power" of the individual stations — the audience developed by its sustaining programs, local popularity and programs preceding and following the time sold.
4. Comparative effectiveness of television alongside other media. Accepted figures of the past have had it that television was 10 to 11 times as effective as radio and newspapers in influencing public opinion. It remains for more controlled and prolonged tests to indicate whether these figures are optimistic or conservative.
5. Type of audience — men, women, children — in relation to products advertised.

Of course all of these factors won't be listed in the rate cards, but they will help in determining for the broadcaster just what the traffic will bear fairly.

Certainly there is no reason why the small metropolitan or community station, with its comparatively modest investment and its close-to-the-operator audiences, should not show a reasonable profit to the broadcaster.



# ONE MAN'S REFLECTIONS

A regular monthly feature by DR. ALFRED GOLDSMITH

## Should Television Have Studio Audiences ?

A RATHER disconcerting situation has arisen in television development, insofar as studio planning is concerned. Some of the prospective television broadcasters, or rather the architects who serve them, have offered studio plans which are extraordinarily complicated. Movable studios with adjacent public audiences have required the introduction of elaborate mechanical and electrical equipment which would probably be space-consuming and of costly nature. It seems timely to ask the fundamental question: Should there be any television studio audiences? If so, what should be their character?

### Illusions Destroyed

In a fundamental respect, the idea of public audiences "behind the scenes" is entirely contrary to the traditions of the entertainment industry. These industries, as the writer has previously pointed out, are fundamentally sellers of glamour and vendors of illusion. As such, the more effectively they shatter the illusions they present, the less attractive the resulting performance. The motion picture industry has been well aware of this state of affairs. Despite its air of apparently unrestricted publicity, it rigidly and properly excludes the public from the stages on which the feature films of the future are under preparation. Efficient and economic operation is thus secured in the motion picture studios, and the public does not become acquainted with the multitude of devices and tricks which are used in the preparation of films.

An extreme case of this same exclusion of the public is that of the stage magician who under no circumstances explains his tricks. In fact, to become a member of any society of professional magicians, it is first necessary to assume a solemn obligation not to expose the methods by which any illusion is produced. Further, the ethical physician refuses to tell his patient his latest temperature recordings lest the patient's condition might be influenced. Perhaps television should pay particular attention to these restrictions since it is certain

that the television art will include the use of many mechanical and electrical tricks which, however effective in the home presentation, will be disconcerting and disillusioning in the studio. Apparently there are many fields in which a certain degree of reticence is justifiable and necessary.

### Station Functions

It is appropriate at this point to ask: "What are the fundamental objects of a television station?"

1. First and foremost, one object is to entertain the audience in their homes. Unless this is acceptably accomplished, the station operation is without justification.

2. A second and legitimate object might be to entertain studio audiences. But if this is so, will the same sort of performance that pleases the home audience satisfy the studio audience?

3. A third possible objective might be to provide thrills and prestige to the sponsor of the television program. We all know how stage-struck some producers have become after their first contact with the legitimate theatre. If commercial television is to fulfill its aim on behalf of the sponsor, it seems important that the sponsor should regard it as a sober advertising medium rather than a glamorous field contributing to his personal enjoyment.

### Reasons For

There are a number of reasons why studio audiences might be justifiably admitted. Some of these reasons are:

1. In the first place, it has been found that a number of performers in live talent shows are markedly stimulated by the response of the visible audience. They are depressed when they perform "into a vacuum" in an empty studio. Yet, the motion picture field seems to have overcome this obstacle with a considerable measure of success.

2. A second reason for a studio audience is to enable it to participate in certain types of shows like quiz shows, "mind-reading" presentations, and the like, which manifestly require

a visible audience. However, we may regard the audience, in this case, as really forming a part of the acting group.

3. A third reason for a studio audience is that it enables the advertising sponsor to acquire numerous friends by distributing tickets for his various broadcasts. In the aggregate, however, the total number of persons thus benefitted by the sponsor would be extremely small in proportion to the interested home audience.

4. And finally, the studio audience provides a television broadcasting station with added prestige. If studio tours are thereby promoted, additional revenue is received. In fact, the interesting question arises whether some television broadcasters may not seriously consider charging admission to the public for witnessing their sustaining program presentations on a legitimate theatre basis.

### Reasons Against

There is also a formidable group of reasons against the presence of a studio audience.

In the first place, the presence of such an audience introduces considerable cost and complication into the stage design. There must be additional space, traffic channels, ticket collecting and control points, space to seat the audience, and ushers to maintain a reasonable degree of orderliness.

Unless the actor and studio staff are completely separated from the audience by elaborate traffic-control and building-constructional methods, it is likely that complications might arise by the mingling of two such diverse groups.

And it is certain that studio design and operating methods will be far less flexible if a studio audience must be accommodated. The placement of the audience and the actors and sets must be arranged in each case with due regard for the comfort of all concerned. This leads to rigidity of the studio structure and of its operating methods.

In some instances absurdities will arise if a studio audience is actually present. The lighting of the set may

(continued on page 35)



# TALK ABOUT IMPACT!

Just recently we invited the press to a preview of full color television in the ultra-high frequencies. Of course, we had planned running an ad on the event. What we hadn't planned was that the ad should be entirely (and glowingly) written for us. Here's what the press says about CBS color television.

## **SAYS "TIDE"**

...CBS did not overlook the increased advertising potential of color. A women's style show, almost meaningless in monochrome, came to life in color. Even little things, like packages of cigarettes, do much better when seen in their familiar colors....

...The significance to the television industry of last week's demonstration would be hard to overstate....

The general reaction: "THIS IS IT!"

## **SAYS THE "DAILY NEWS"**

...the demonstrations prove that 3 great obstacles, once regarded by many as insuperable, have been overcome. First, CBS is able to

generate sufficient power in frequencies above 300 megacycles to transmit satisfactory color images. Secondly, it modulates a 10 megacycle video band, which most authorities said could not be done. Third, it has eliminated the bothersome reflections known as "ghosts", which have hitherto marred television pictures.

Ultra-high frequency color television, without annoying "ghost" reflections, is a reality....

## **SAYS THE "WORLD-TELEGRAM"**

CBS color video, in debut, proves beautiful beyond description.

...The image is sharp, distinct and completely realistic. Dr. Goldmark has given us a magic casement, and the vistas it will open should



# Here's how CBS full color television struck the press

have a profound effect on every phase of the advertising and entertainment business, not to mention the arts, letters and sciences. It is a medium that calls for the best in all these fields.

...those who watched the CBS demonstration feel sure there will be a mad rush to buy television sets as soon as the public has a glimpse of natural color video.

## SAYS THE "HERALD TRIBUNE"

There were several new things about the demonstration. The signal was being transmitted in a full 360-degree arc from the Chrysler Building, rather than in a directional beam; one transmitter was sending both sight and sound, instead of a separate transmitter being used for each; there were no multiple reflections, or "ghosts" on the viewing screen; the colors appeared real. There was clear definition in the images as well....

## SAYS "TIME"

It was clearly—and colorfully—the most notable television demonstration of the year. ...The reception, as vivid as a Van Gogh painting, made black-and-white television look antiquated....

## SAYS THE "WALL STREET JOURNAL"

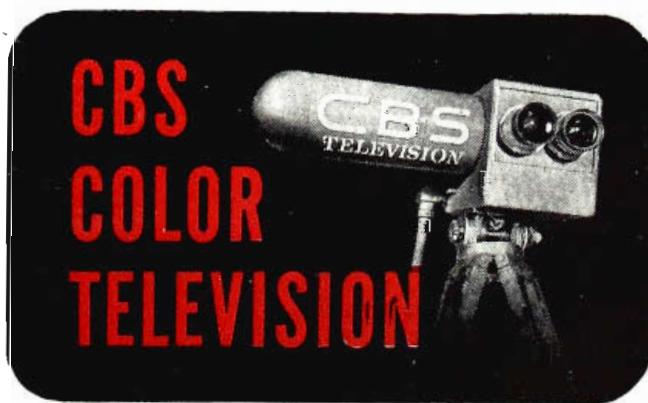
Television in color is a lot closer than most people had believed, it was conceded over the week-end by experts in the industry. . . .

The pictures shown by CBS were clear and the color contrasts as good as those of the best color moving pictures....

The CBS demonstration left little doubt that color television has reached the perfection of black and white....

## SAYS "P.M."

The long-awaited press showing of CBS color television demonstrated without doubt that they have achieved a dramatic refinement on image transmission....



THE COLUMBIA BROADCASTING SYSTEM



# Long Shots And Close Ups

A regular monthly feature on film production by H. G. CHRISTENSEN

**I**F THE Republicans elected another President, or the cost of living went down, or the Government balanced the budget, it wouldn't cause much more talk among the populace than the advent of television has among broadcasters, advertisers, FCC, motion picture people, writers, producers and the others trying to get in the act.

Even some of our great national magazines are lending their aid to the confusion by presenting feature bouts with the skeptics of television in one corner — versus — the optimists in the opposite corner. An exhibition for the public of the respective virtues of "I will" and "I won't" or "We can" and "We can't." The only unusual thing about these bouts that I can see is that there seems to be no referee — you my dear reader — are it. You make your own decision as to who wins and nobody will argue with you. Nothing like keeping posted.

Regardless of all the theorizing and practical experience with television, it seems to me whether or not it makes the grade will depend primarily, if not solely, on the ability of the people working with it to produce shows that will get and hold audiences, and produce commercials that will sell the advertiser's products. And, no matter how good the shows are — or become — if they don't bring in that good old dollar sales return — you can put on THE END title.

## "Box-Office" Appeal

Even though television is going into the home, it's still going to have "box-office" value to get in there. 'Cause now, ladies and gentlemen, YOU are going to be your own theatre manager and don't forget it and when you turns it on, to take your choice — I gotta hunch it's going to be what you SEE, more than what you hear that's going to determine WHAT SHOW gets top-billing in YOUR living room theatre whenever you attend.

So, the show has got to be interesting, entertaining and appealing or

you won't look. But, it must also sell, or it won't be there to look at — unless it's a pure sustaining public service program or strictly a good-will show, of which there aren't enough to foot the television bill, and probably never will be. This brings us right to the business of how to present television commercials that will sell, and not offend.

## Commercial Technique

And here, it is my belief that much can be learned from the movies. Contrary to some people's opinions, I not only believe, I know that movies have and can do a great job of selling; both inadvertently in theatrical pictures, and directly in non-theatrical pictures, to say nothing of sponsored one-reelers and minute movies which are being run in thousands of theatres today. The selling power of pictures is recognized by every theatre owner who runs an announcement trailer on his screen to sell his forthcoming attractions. Some of those trailers run five minutes and longer, still nobody seems to object to them. Primarily because they're entertaining. Thousands of these owner-managers wouldn't run paid screen advertising, because many of them are anything but entertaining. Still, there are many theatres who will accept and run paid screen advertising if it is produced to entertain and sell.

That is what television commercials are going to have to do — entertain and create the desire to buy! Commercials of this type are few and far between and in my opinion it's due to radio writers who still try to apply radio commercial technique to television commercials. It can't be done — they're two different breeds of animal.

Here's an example of what I mean. Let's assume we are producing a television time check commercial for a leading watch company. Sooner or later we are bound to see a close-up of a bracelet wrist watch on the wrist of a charming lady. Now what does the average radio writer of commer-

cial have to say about this? He tells the audience that "the watch is beautifully designed — it is a masterpiece of accuracy — the workmanship is exquisite" — and such.

## Tell 'Em What They Can't See

And what does the audience want to know? They can see it's beautiful, that the workmanship they're looking at, is exquisite. *They want to know* if it has a seventeen, nineteen or twenty-one jewelled movement for that accuracy; if it is gold, platinum, white gold or just plain gold-filled; and if it is gold is it 14 karat or 18 karat; what kind of stones are in the bracelet — diamonds, rubies, emeralds or what; what does it cost? All of these your audience *can't see*, so why not tell 'em? If it has a name like "The Lady Godiva" model, tell 'em. You don't know — some gal may want to buy one and won't know what to ask the jeweler for, except the watch she saw on the air last night with some kind of stones in the bracelet.

Why *waste words* on something that can be *told better* by pictures when you can use 'em to greater advantage talking about the things that *can't be seen* and are important to the product.

This question of which is most powerful or longest remembered — that which you see, or what you hear — is of great importance in any medium combining sight and sound. I believe that sound is secondary to sight — surely anyone if they had to choose between blindness and deafness, would prefer the latter. Things you see can be so absorbing and interesting, that you hardly hear what is being said. With most people, SEEING IS BELIEVING.

Here is an interesting fact. Recently I produced two minute movies for a national advertiser which were *exactly alike in picture content*, but with different commercial plugs for the finish. The picture on the screen was *exactly the same* for both plugs. When they were ready for screening



for the acceptance of the client, the president of the company, the vice-president, their radio expert and the vice-president of their advertising agency were present. I screened both prints which met with their enthusiastic approval. But, sez I, *which one did you like best.* They're the same, said they. Oh no, sez I, there are two entirely different commercials in them. This they didn't believe, they had heard no difference, and the pictures had to be screened again, not only to prove they were different, but so a selection could be made. The only reason that any of those four men could give for not detecting the difference in what was said in the two commercials was that they were so absorbed in what was *on the screen*, they hardly heard the commercial. WHY, because on the screen during the commercial, the product was being shown and demonstrated so interestingly that it took all their attention. That's the tremendous impression visual selling can make!

### Seeing Is Believing

It was no accident that the armed forces speeded up their training 40% on such subjects as radar, bombing, detecting submarines, gunnery and hundreds of other technical subjects by the use of visual methods. There is no better way to make a lasting impression on the mind than by pictures that tell the story, supplemented by the right words, when and where needed. That should be the basic formulae for television commercials.

The most valuable court witness is an eye-witness. A good reporter is a guy who can accurately describe what he saw and to help him out, news photographers go with him, when feasible. How many times have you said, and heard other people say, "That was the greatest sight I ever saw" —

"I'll never forget the look on his face" — "I saw something today I'll never forget" — "I wouldn't have believed it, if I hadn't seen it with my own eyes" — "The very sight of it took my breath away" — and hundreds of similar statements about things they've seen and some of them going back twenty to fifty years — indelible visual impressions — never to be forgotten. So again, I say, script writers, don't think your words are the most important. As a song composer said to me just the other day when I complimented him on the lyrics of a new song, "The words are okay kid, but what about the tune? Nobody ever whistles the words."

### Picture Power

You may think I have a phobia about the power of pictures over words. But when you have agency executives and copy men, and top-flight men in their business at that, insist that the copy is of greatest importance in movies and television, and that they *do not* believe that *what a person sees* he remembers longer than what he heard — I begin to worry about the future of television.

This facility of television, to tell a visual story, to prove verbal statements by visual proof, should open a new realm for advertisers who heretofore have never been able to use radio profitably. Advertisers whose products must be seen and not heard (about) — products that must be demonstrated to be sold — products which by themselves are not interesting, but become very valuable and useful by virtue of their accomplishments, which will now be seen. Real estate firms may offer homes over the air, that otherwise you might have to travel miles to see. There will be many new advertisers using television — and only because if you're from Missouri — they can show you!

## T B A Convention

FALL session of the TBA Convention, set for October 10th and 11th at the Waldorf Astoria in New York, will be highlighted by the first showing of the latest television equipment — receivers, transmitters, cameras and studio accoutrements. In addition, plans call for demonstrations of television, both from local transmission and network operations.

Ralph Austrian, president of RKO Television Corporation, has been named as general chairman.

# AT LAST!!

## A Complete, Practical Handbook of Present-day TELEVISION

Now, the tremendous opportunities in the field of television are brought within your reach — by means of this crystal-clear book. Written in plain English, concise and up to the minute, it makes television easy to understand. There is no mathematics to confuse you and make explanations difficult to follow. Hundreds of vivid illustrations bring every fact and point right before your eyes. You'll be amazed at how simple television can become with



# TELEVISION SIMPLIFIED

by MILTON S. KIVER

Associate Instructor in radio, U. S. Army Air Forces. Formerly Instructor in radio, Illinois Institute of Technology.

This brand-new, authoritative handbook not only contains all the information you need for success in television, but covers the trouble shooting and repair of radio sets. Beginning with a clear, overall picture of the entire field, it breaks down the television receiver into its component parts and circuits. It analyzes them, step by step, showing how they are formed, the roles they play, and their operating characteristics.

### BRIEF OUTLINE OF CONTENTS

The Television Field; Ultra-high Frequency Waves and the Television Antenna; Wide-band Tuning Circuits, Radio-frequency Amplifiers; The High-frequency Oscillator, Mixer and Intermediate-frequency Amplifiers; Diode Detectors and Automatic Volume-control Circuits; Video Amplifiers; Direct-current Reinsertion; Cathode-ray Tubes; Synchronizing Circuit Fundamentals; Deflecting Systems; Typical Television Receiver — Analysis and Alignment; Color Television; Frequency Modulation; Servicing Television Receivers; Glossary of Television Terms.

### EXAMINE THIS BOOK FREE

Let this book prepare you to take advantage of the brilliant opportunities television offers. Send for it NOW!

By the same author:  
U. H. F. RADIO SIMPLIFIED . . . \$3.25.  
A complete, up-to-date book on the methods and equipment used in ultra high frequency radio, that has so many applications in war and peace.

### MAIL THIS COUPON

D. VAN NOSTRAND COMPANY, INC.

250 Fourth Avenue, New York 3, New York

Please send me the book or books I have checked.

Television Simplified @ \$4.75.

U. H. F. Radio Simplified @ \$3.25.

Within 10 days I will either return the book or books, or send you the purchase price plus a few cents postage. (If you enclose check or money order with this coupon, we will pay the postage. Same return privilege and refund guaranteed).

Name.....

Address.....

City..... State.....



# PROGRAMMING

WRGB's work with local dramatic groups . . . resume of various formats tried by operating stations.

## AMATEUR GROUP

Of particular interest to stations who plan to use local amateur groups is WRGB's cooperation with Skidmore College in the presentation of "Wuthering Heights." The full length play, divided into three acts with five minute intermissions, ran for 2¼ hours.

Adapted from Charlotte Bronte's novel, play required a cast of seven — with three female and four male players. Girls were cast by Skidmore, with G.E. casting the men who were selected from local amateur groups in Schenectady.

The play was completely directed at the college and rehearsed there, for stage presentation primarily. Bob Stone, who produced the play for WRGB, attended one rehearsal and one performance at the college, in order to plot camera angles. Big difficulty in adapting a stage-rehearsed play to television is compressing the action down to the limits of video. The Skidmore stage is large — and natural tendency is to make the most of it. However, in building the sets for the tele-version, they were about two-thirds the size of the original scenery.

For a 2¼ hour show, there was only a 3½ hour camera rehearsal — which meant going through it just once. The previously worked out camera shots were tried and adjustments

made where necessary. However, WRGB does not consider this a particularly good way to operate. In Bob Stone's opinion, the show needed nearer twenty hours of camera rehearsal to really do a good television job.

Only two cameras were used — one fixed for close-up shots, and a movable camera for the long shots. Camera shooting was largely long shots, with only a few medium close-ups used. This technique occasionally resulted in losing the effects of the speeches, as the camera did not pick up facial expressions.

Choice of such a play may be open to question, particularly since such a spectacular job had been done on it in Hollywood, with the dramatic impact heightened by outdoor shots on the moors which underscored the wild rebellion inherent in the characters of Heathcliff and Cathy. For those who had seen both, natural tendency would be to compare the two with video due to suffer in comparison. Story had a highly dramatic, psychological theme, based on the elemental emotions of hate and love, building throughout to a final climax of destruction. It was a difficult play, with long speeches and an undercurrent of emotional tension to be sustained, but the Skidmore group turned in a creditable performance.

Title cards were lettered in old English to tie in with the period, but this type of printing is difficult to read and a little tough on the viewer. Cast credits were handled by close-up shots of each performer, followed by a slide giving the character and name of player.

## DRAMA

WBNT's presentation of "Laughter in Paris" was a full length original written for television by NBC's script manager, Richard McDonagh. Using the promotional idea that the script would make a good movie, NBC invited representatives of motion picture studios to the viewing room to see the performance. In addition, a notice was sent to all viewers explaining this and asking them to help cast the play for the movies. Cards were enclosed for their convenience.

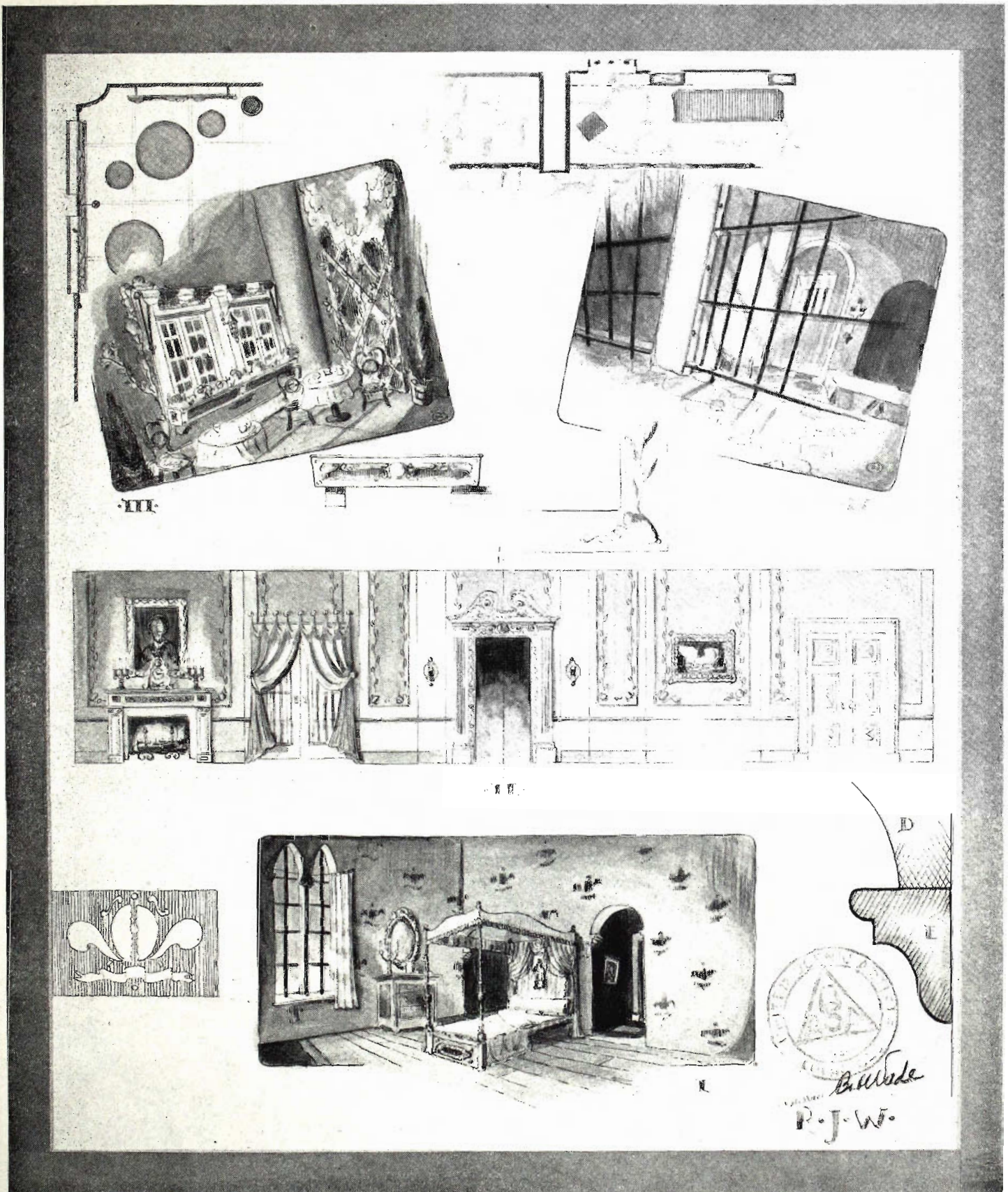
Story was a psychological mystery drama, employing the flash-back technique to unfold the plot and hold the suspense. Centering around two brothers — Henri, gay, artistic, care-free, and Pierre, mercenary and wealthy manager of their joint business interests, play opened in the present in the bedroom of Pierre, a sick, fearful old man who insists that his two male attendants bolt all doors and windows. Settling him for the night they leave and as he lays there tossing, his brother appears at his bedside, taunting him for the injustices which he had received from him forty-six years earlier, threatening to kill him, making him relive each scene as it happened.

Good camera shooting heightened the dramatic tension here, for side angle shots only showed the arms and back of the older Henri, picked up the terror on Pierre's face. Black-outs were then used for each flashback. Briefly the story concerned the brothers' love for the same girl, culminat-

This scene from WBNT's "Laughter in Paris," shows the living room set which was constructed along the end and sides of the studio. Particularly interesting are the wall and drapery treatments which, while eliminating the bare look, are simple enough to avoid any confusion in close-ups.







Credits: Production Manager—N. Ray Kelly; Art Director—Bob Wade; Set Decorations—Elwell.

Here's one method by which a television art director may transfer information visually and rapidly to the executing staff. A plate of settings and details for the NBC production of "Laughter in Paris," a dramatic program directed by Fred Coe, acts as an adjunct to the conventional scaled staging plan, and readily informs the scene painter, set dresser, property man (and possibly the director or video technicians) about decorative details, wall treatments, the cutting of stencils, ornamentation that may not be indicated on the regulation blue-print.

Realizing that time is short in television planning, the designer has here rendered four sets on one plate, some in perspective, and one in elevation to show furniture types and placement, rather than the larger detailed scenic artists' elevations used in the theatre. Given such visual instructions, scene painters and set dressers may start work without waiting for elaborate drawings. Naturally this quickie work sheet does not replace the all-important staging plan by which space problems and camera angles are plotted.



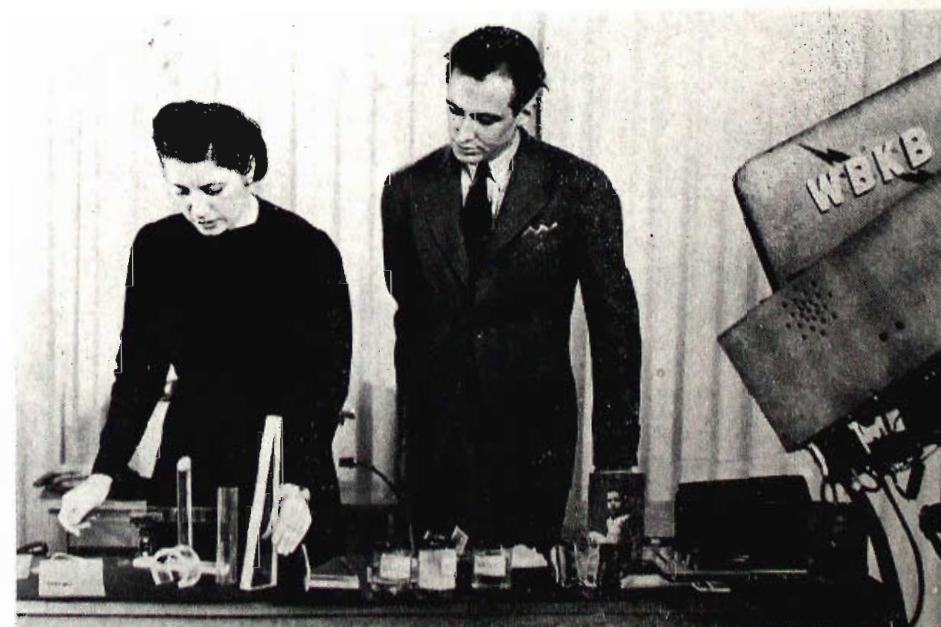
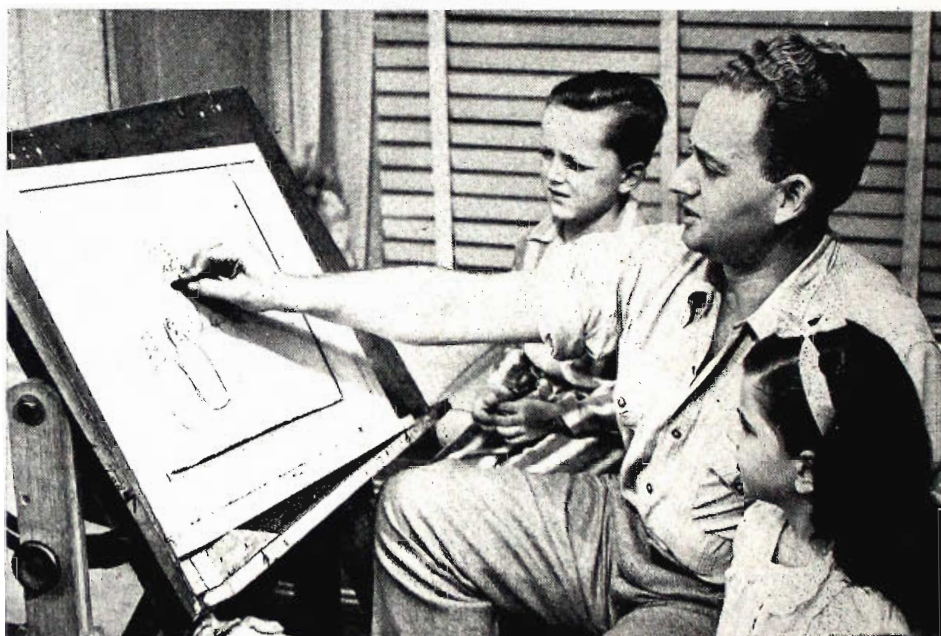
ing in Pierre's efforts to trick Henri out of his share of the estate and climaxing in his carefully planned murder of the girl with the evidence arranged to throw guilt on Henri, which resulted in his conviction and life sentence to Devil's Island.

There were fifteen scenes in the fifty-minute production, with flashbacks to the bedroom used to carry the sequence of the story, as Henri pummels Pierre. Novel story twist came at the end with the attendants coming in to find Pierre badly battered and the audience learning that the setting is really a mental sanitarium and that these "delusions" have been frequent occurrences.

Particularly interesting is the controversy which this play aroused. Some critics kicked it around; others praised it. Choice of such a morbid theme for a television play was criticized. Significant also were the remarks of some of the movie guests who seemed very impressed with the presentation and voiced the old unanswerable "What do you think television will do to the movies?" Except for a slow opening we thought it was an interest-holding play exceptionally well produced and well acted. Production-wise, it was excellent, with the black-out technique adding to the general somber mood, and the switch from scene to scene done almost instantaneously.

Of interest too were the six sets required for the production and the utilization of WNBT's studio space to provide such a set-up. Reproduced here are Bob Wade's sketches to supplement the conventional scaled staging plan.

WNBT's one-act adaptation of Robert Sherwood's "Abe Lincoln in Illinois" kept the best of the playwright's dialogue and offered a program that was both concise and timely, pointing out in a subtle fashion that the problems of 1946 and the Civil War



#### ILLUSTRATIONS:

Top: ABC's "I Saw It Happen," presented over WRGB, dramatizes the high spots in a newspaper columnist's recollections. Against a newspaper office background, the columnist and his secretary are used as the connecting links between the different incidents.

Center: WCBW's, "Tales From Hoff," was an experimental children's bedtime program. Format was a cartoon visualization of a kid's story, as the tale was recounted by the cartoonist. Cameras moved in for close-ups of the cartoons, and side-angle shots of the cartoonist at work, with good results.

Bottom: WBKB's educational program in cooperation with the School of the Art Institute, used the demonstration technique to show the new art of designing in plastics to their viewers.





period are not too dissimilar. Four sets were used with a minimum lapse of time between scenes for costume and make-up changes. Play was well cast, well acted and moved swiftly with a few minor exceptions.

First scene presented a Lincoln-Douglas debate on slave rights, staged on an outdoor rostrum and complete with a visible as well as audible mob. Good trick was the camera moving in over the heads of the people for a close-up of the speaker. During the long speeches, which could have proven dull video, camera action cut in to show mob reaction or reaction of each man as the other spoke. The interview in Lincoln's home, second scene, was the only interior shot used.

In both the election returns and outside the railroad station, mob scenes were particularly well cut-in. Sound effects were good too, giving the impression that the speeches, cheers, etc., were really taking place out-of-doors. One disturbing factor that could be added to the list of little things that a producer must watch, was the sameness of the faces and costumes in the mob scenes, despite the fact that the crowds were supposedly appearing in different years and different places.

#### PUBLIC SERVICE

WBKB, in cooperation with the National Safety Council, presented "D.W.I."—which means a person who "Drives While Intoxicated." Introduced for the first time on television was the famous "Drunk-o-Meter," developed by the Evanston Police Department, which can scientifically detect the degree of intoxication of a "D.W.I." who has been picked up. Evanston officials and a member of the Safety Council appeared on the program, explaining the workings of the mechanism and the dangers of drunken driving.

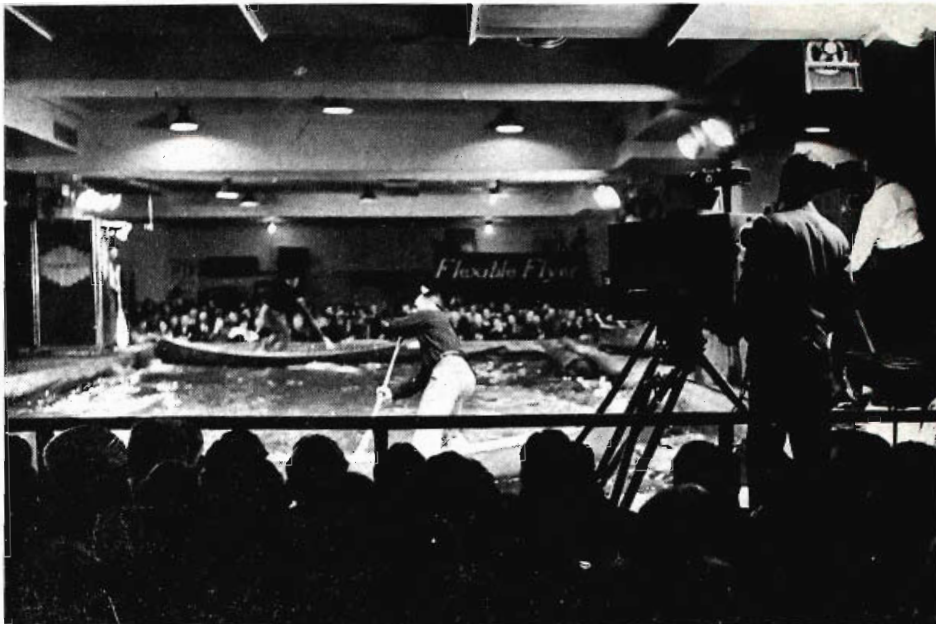
#### ILLUSTRATIONS:

**Top:** Half-hour dance program, recreating authentic Haitian voodoo rites, was telecast by the Katherine Dunham Company over WCBW. Interpretation featured twelve dancers, a narrator, and recorded and "live" drum beats.

**Center:** ABC's, "Play the Game," presented over WRGB, emphasized the informal house party format idea with the rumpus room setting. "Party" guests were each given a problem to act out or a stunt to do as in Charades.

**Bottom:** A series of golfing lessons have been presented over WBKB with a leading golf pro demonstrating some of the finer points of the game. Opener started with the more elementary principles of the game, with the instruction progressing each week.





WCBW's mobile units televised the annual Sportsmen's Show from Madison Square Garden. Here cameramen move closer to the scene of action.

W6XAO, capitalizing on the widespread interest in the atomic bomb experiments scheduled for the Marshall Islands, presented an explanatory program. A representative of the U. S. Navy discussed plans for setting off one bomb in the air and another from a float. Tying in with this discourse was the film program, "The Last Bomb," an Army Air Forces production which depicted the final operations of the B-29 in defeating Japan and the atom-bombing of Nagasaki.

WBKB's "Preparation of an Income Tax Return," had as its star a member of the Internal Revenue Department. No attempt was made to dramatize the format or make it entertaining. It was a straight educational presentation, giving a detailed explanation of the proper methods of filing a return.

## VARIETY

WRGB's "Gems from the Harvey Girls," tied in with local movie showings of the picture. Using a strip of 16 mm. film, a scenic background was drawn in with the Atcheson, Topeka and Santa Fe lettered on. A toy train was slowly drawn across and superimposed against the strip for the opener. Camera then picked up a girl singing, fading in and out of the film background. Dissolve was then made from film sequence into live show.

Studio set showed a restaurant scene with a man walking in to be served and heading toward a table where a waitress was standing. The menu was lettered "Harvey House," and the musical numbers were printed on the menu. The man's ordering

was the cue for the songs, with close-ups of the menu giving the titles. The three waitress-vocalists were accompanied by a piano.

This handling is typical of the WRGB song presentations—whereby all musical numbers are dramatized with a story format.

WCBW's latest experiments with children's formats brought the fairy tale up-to-date and used the talents of cartoonist Syd Hoff to visualize the story of the snow babies. Setting was simple, with Hoff seated at the drawing board and the two youngsters on each side of him. Narrative of the tale was carried by Hoff, who drew the figures of Momma and Poppa, who were very unhappy because they had no children, until the snow babies came along.

As Hoff told the story, he illustrated each sequence with charcoal caricatures. Kids' comments added a natural touch to the whole program and Hoff interjected enough humor in his commentary and sketches to hold adult interest. Camera action was exceptionally well worked out for a format of this type where there was no movement on the part of the performers. Action varied from shots of the three at the drawing board, to close-ups of the artist's hands, and switching from that to a close-up of what had just been drawn. This pace gave an element of surprise, for there's a fascination in watching an incident take shape under an artist's hand. Bedtime story idea was played up by having the kids in their pajamas, ready to scamper off to bed at the conclusion of the story.

ABC's "I Saw It Happen," a half-

hour show produced over WRGB, builds its format around Don Dunphy, in the role of a newspaper columnist and his secretary Margie. Opening is set in a newspaper office, with camera moving in for a close-up of Dunphy at his typewriter. Recording provides the usual background of noise found in a newspaper office.

Opening conversation between Dunphy and Margie as he starts to write his column introduces the evening's guests. Scene then fades out to a dramatization of the event which Dunphy had started to describe. Dissolves back to office between episodes furnish the connecting link.

Typical of this program was the format which starred Jimmy Grippo, the hypnotist. Story was built around Grippo hypnotizing Tony Galento, swung to a comedy routine between Grippo and Evil Eye Finkel, with each trying to outstare the other, and concluded with a demonstration of Grippo's powers over some of the spectators. Grippo hypnotized one boy into believing he had been stung by bees, another into thinking he could not sit down, still another into believing that he was alternating between freezing and burning up.

Screen titles and credits, superimposed over a montage of filmed sports events, open the show.

## MOBILE PICK-UPS

WCBW's mobile camera crews have been bringing the basketball games from Madison Square Garden as a regular weekly feature to tele-viewers. In addition, they have widened their scope to include the Golden Gloves Boxing Tournament and the New York Sportsmen's Show, also from the Garden.

WNBT has kept to their schedule of bringing boxing bouts on Monday and Friday night, basketball on Wednesday, and hockey on Sunday. In addition they also televised the N.Y.A.C. games at the Garden, which featured top track events.

Duplicate coverage of some sporting events by the two stations will probably continue until a sponsor steps in and nails the event as an exclusive.

Interesting sidelight on this television coverage of sports events—and boxing in particular—are the stories circulating about the bars and taverns equipped with television sets, in the New York and New Jersey area. Business booms on the nights when such events are shown. One midtown bar has discontinued showing the fights because of the crowds the feature pulled—too many outsiders who disturbed their regular clientele!



# ADVERTISING

Analysis of New York stations' commercial rates and procedures . . . new shows . . . agency activity.

## STATION POLICIES

ON THE controversial point of agency producer vs. network director control, NBC's policy, as stated in their recently issued brochure "Guide To Commercial Production Procedure," gives the reins to the agency producer, along with the right to okay the director assigned by the network. Studio rehearsals, conducted by the director, will be held under the producer's supervision and he will be in the control room to transmit his instructions on the camera handling of the show to NBC personnel through the director.

Another interesting feature is the inclusion of rehearsal time in the flat charges — which can be interpreted as a smooth network maneuver to insure at least minimum camera rehearsal. This overall charge will eliminate any corner cutting on costs and skimping on rehearsal time which may result in a less perfect, on-the-air technical performance.

Emphasizing that any policy set up at this stage must necessarily be tentative and subject to change as the medium grows, the booklet nevertheless puts down in black and white a definite policy and sets a rate card.

All program material presented for production over WNBT must conform to the same rules of good taste that NBC has enforced in their sound broadcasting.

## Live Shows

When advertisers create original program material for live television, development of the script and all details pertaining to staging it will be handled by the agency producer. NBC will assign a director and complete technical staff to work under his supervision on studio rehearsals and to carry out his orders in the camera execution of the television material. The producer will be in the control room and the director will transmit his instructions during the on-the-air program. On the net's side, the director will be responsible for the maintenance of all company policies, rules and regulations and for the direction of NBC personnel. In addition, he will be available for consultation and discussion with the agency producer

at all stages of the program's preparation.

For such sponsors as have developed original television programs but who do not have a production staff, NBC will add the services of a producer, and any additional creative personnel to the basic production unit. The net's producer will work with the client in developing the idea into a package program. This collaboration, if desired, can be broadened to cover script preparation, casting, rehearsals, coordination of facilities

and responsibility for the presentation.

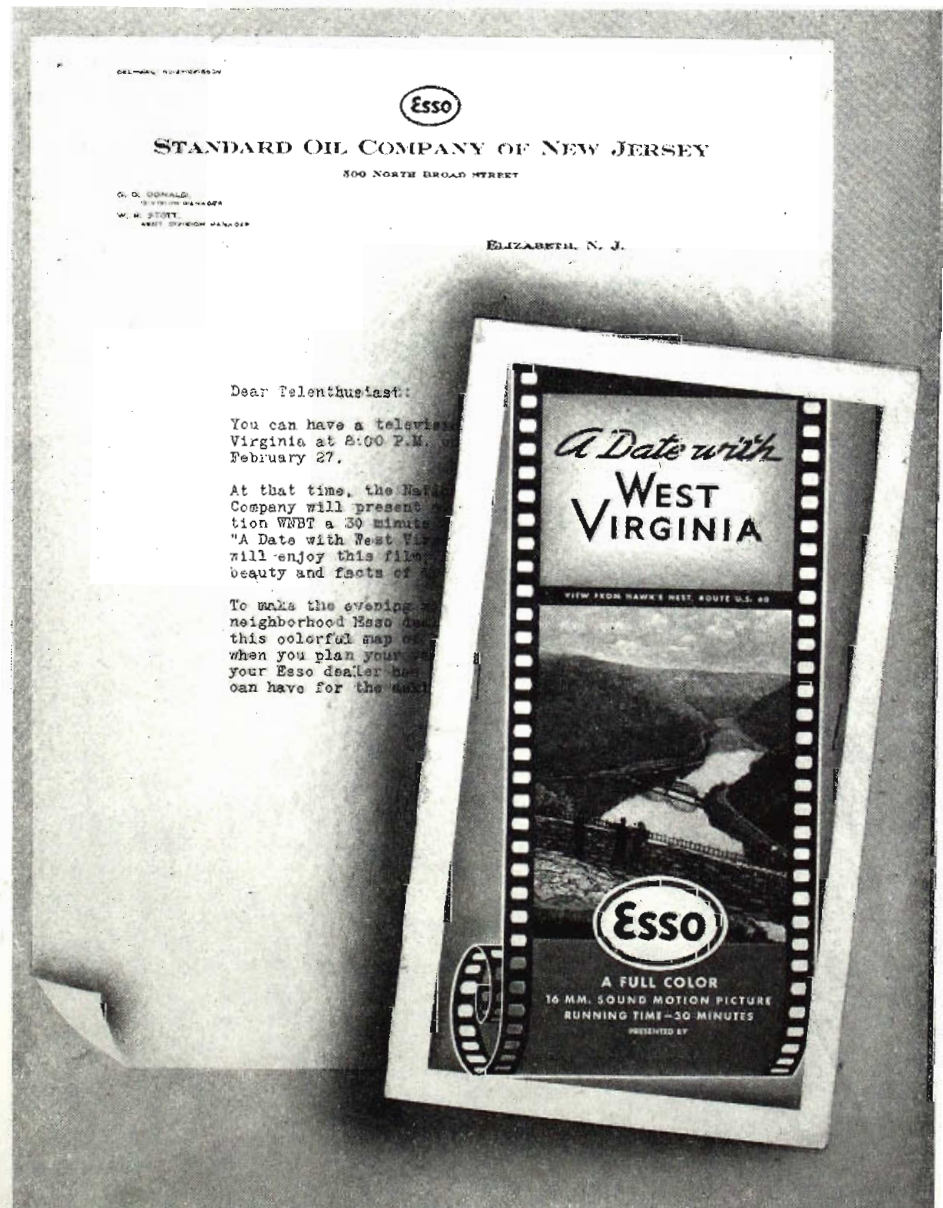
## Film Programs

NBC will film television programs, or will accept client's own material for presentation over WNBT. In addition, NBC built-and-produced television film programs will also be available as packages.

## Commercials

If requested, NBC will also assist in the preparation of commercial copy and continuity. Charges for this serv-

Esso promoted their half-hour television show, "A Date With West Virginia," by sending a letter of invitation and a road map to the WNBT list of viewers. This is the first in a series of four states. Marschalk & Pratt is the agency.





**This rich new  
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Television is no longer just around the corner. It's here—and mushrooming. You can grow with it. Television needs—and will pay large sums to—writers who know specifically how to write for television. *You can be one of them.*

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by **DOUG ALLAN**

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ice will be figured separately from program costs, dependent upon the type of commercial and the preparation involved.

**Miscellaneous Expenses**

Scenery and stage settings may be furnished either by the client or by NBC, but must be built to NBC specifications. If requested NBC will arrange for the settings, charging on the basis of decorating or altering sets on hand, rental, transportation, or new construction. Charges for set-up and striking of sets will be based on man-hours required.

Where NBC handles the entire show, charges for casts, musicians, announcers, etc., will be dependent upon the talent used. For film studio showings, where announcers, commentators, effects men, music and script rights are required, charges will also vary according to the personnel required. Charges for cutting and editing films, preparation of slides, captions or other required special film effects will be quoted on individual basis. For field pick-up units, quotations are again based on the facilities, personnel and equipment required in each case.

**WNBT Rate Card**

Contract minimum is 13 weeks,

with air time segments of 10 minutes or more than hour upon request. A separate transmitter charge of \$75 for ten minutes and \$100 for 11 minutes to 1 hour is made. Including this cost, the on-the-air time is as follows:

**Live**

- 1 hour — \$850 (including five hours rehearsal)
- 1/2 hour — \$600 (including three hours rehearsal)
- 1/4 hour — \$400 (including two hours rehearsal)
- 10 minutes — \$325 (including 1 1/2 hours rehearsal)

NOTE: A flat charge of \$75 is made for the use of the film studio when used in connection with live studio productions.

**Film**

- 1 hour — \$350 (including three hours rehearsal)
- 1/2 hour — \$300 (including two hours rehearsal)
- 1/4 hour — \$250 (including one hour rehearsal)
- 10 minutes — \$200 (including forty minutes rehearsal)

**Additional Rehearsal Costs**

Use of studio facilities for additional rehearsals is pegged at \$150 per hour or nearest half-hour fraction thereof; with \$50 an hour or nearest half-hour fraction thereof being charged for the film studio.

Programs, such as audience participation shows which do not require the allotted rehearsal time, will be charged at the rehearsal rate of \$150 per hour, for pre-program preparation, plus the time for actual broadcast.

**DuMont**

DuMont's policy of letting the agency

producer run the whole show at the station will still be in effect when the new Wanamaker studio opens, although no formalized procedure has been set nor have they settled on the final form of their contracts as yet. As reported previously, DuMont's rates are:

**Air Time**

- 1 hour — \$300 (\$255 on 52-time basis)
- 1/2 hour — \$180 (\$153 on 52-time basis)
- 1/4 hour — \$90 — (film only \$76.50 on 52-time basis)
- Announcements — \$30 for a minute or less

**Rehearsal Time**

- Large studio — \$65 an hour
- Small studio — \$40 an hour

Stage settings, props, etc. will be handled by DuMont's art department when requested.

**CBS**

CBS' original policy of \$150 an hour facilities charge for the use of their studios, both during rehearsal and on-the-air, still holds, but it is understood that a definite policy is being formulated. This leaves CBS at the moment the toughest of the three stations, still retaining their right to pass on the program content from the angle of what makes good television entertainment.

**Summing It Up**

Summing up the cost factors, discrepancy in rates are not as wide as they seem. If the five hours rehearsal which NBC includes in their flat rate, were added into the charges of the other two, the three stations in New York would stack up as follows on the hourly basis:

**RATES FOR ONE HOUR**

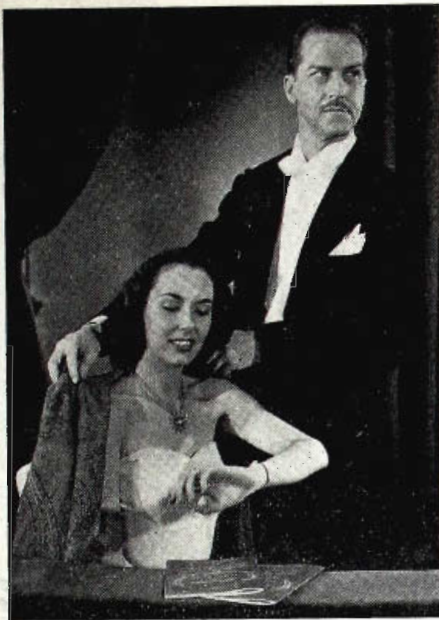
NBC	\$850	\$100 transmitter charge; \$750 program facilities charge; 5 hours rehearsal included
CBS	\$900	1 hour air time plus five hours rehearsal — or 6 hours at \$150 for use of facilities
DuMont	\$625	\$300 per hour plus five hours rehearsal at \$65 per hour

**COMMERCIAL SHOWS**

Esso inaugurated its series of half-hour film shorts over WNBT with "A Date with West Virginia." Direct commercial was limited to the Esso sign at the beginning and end of the program. However the entire film was planned to promote travel by car,

with opening sequences picking up the hills and valleys of West Virginia and the highways which interlace the state. Commentary neatly tied in the scenic beauty on the screen with its accessibility to the motorist, by pointing out the bridges, clearly marked highway signs, and the precautions for safety taken in building the road-





Set in a box at the opera, latest Waltham time signal film carries out the theme of associating elegance with Waltham. These twenty-second signals will be shown over WNBT, WPTZ and WABD. Agency is N. W. Ayer.

ways. Film then swung into the industries of the state — farming, coal mining, gas pipes, glass blowing, etc., with at work scenes to add interest. Shots of Charleston, Huntington and Wheeling, as well as views of state parks, rounded out the program.

Film was well planned and picture composition was excellent. Particularly clever integration of the theme to promote more motoring was the use of highway scenes as a bridge from sequence to sequence, with just a word or two to emphasize the road conditions in the commentary. Program closed with the Esso slogan, inviting the viewers to "happy motoring" in West Virginia.

This film was an excellent example of the subtle commercial technique. The entire shooting script was built around the theme of increased vacation travel by car, and tied in the beauties of the state with the convenience and safety of its state highways. Nowhere was the sponsor's product mentioned during the commentary, but the Esso trademark carried a visual punch.

In addition to video scanning, shorts will be shown to motoring clubs and other groups, thus cutting down on the per viewer cost. Particularly interesting was the promotional tie-up which Marschalk & Pratt, agency, made with the owners of tele-sets. Agency sent out letter announcing the program and enclosing a road map of West Virginia, to all people on the NBC list of viewers. Similar films are being planned for six other states.

Esso has signed a 26-week contract

with WNBT for two weekly ten-minute spots which will feature the Esso Television Reporter. According to John Allen, television director at the agency, they expect to increase this gradually to the point where they will be on every night in the week. Films will be made by the NBC camera crew, who will take full responsibility for the authenticity of the film. These can be relayed to Philadelphia and Schenectady. Agency also has its eye on the Washington station when completed.

**Marxman Pipes** made their television debut with a 10-minute variety show, "Close-Ups," over WNBT. Program was completely produced by the web's staff. Commercial theme was based on stressing quality of the pipes and top talent was chosen to tie in with this angle.

Program opened with a singing commercial on pipe smoking played against the title card and was followed with a still of a hand holding a pipe, while the off-screen announcer stressed the quality of Marxman in general. Idea of close-ups was used to switch from the pipes into the three entertainment spots. Slides of Marxman pipes were used between each number with off-screen commercial. Film strip pointing out a particular feature was used at the end to show the craftsmanship that goes into making a fine pipe. Program concluded with the last few lines of the theme song.

Format was in three parts, with Lillian Cornuell singing in the opening and closing spots, and Sheila Barrett's impersonation of a cockney girl saying good-bye to a Yank sandwiched in between. While no one could question the quality of the talent, it still did not make very exciting television fare. First the performers acted before a drape and a vase of flowers, certainly not very much in the visual line. Camera action varied between routine long shots and close-ups. There was not enough "business" or action to hold interest. Against the backdrop of a night-club or a stage, where the eye may roam to the orchestra or to the setting, this type of entertainment can be tops. But within the confines of the video screen, it fell flat.

Commercial seemed overpowering — yet actually included the opening and closing theme song, the three off-screen commercials and the film strip, it only totaled two minutes of the 10-minute program. Flashing from the close-up of the pipes, to the close-up of the entertainer, seemed to give equal weight to each portion of the program. This impression was prob-

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ably due to the fact that the entertainment itself was of simple nature — a song, an impersonation, a song. This same technique of alternating the plug with the acts has been tried successfully before but usually only where the acts have been skits, involving a few characters and with some dramatic or comedy theme to sustain interest and to give substance to the format.

This points up again the well known fact that a direct video commercial is potent and must be measured out in carefully spaced doses.

### CBS PACKAGE SHOW

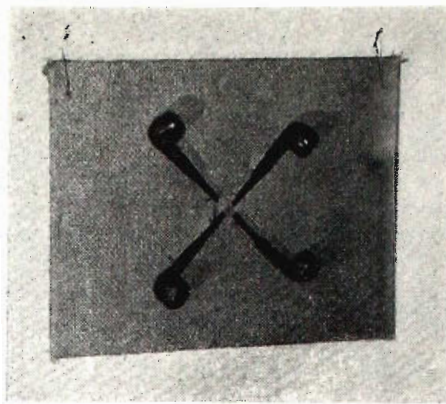
WCBW's latest package show, "It's A Gift," is obviously a commercial format but it failed to hit the bell as top video entertainment. Set in a gift shop with various pieces of merchandise displayed in niches in the wall, people who enter the shop are asked to choose their gift and then made to answer a question or do a stunt in order to win it. The selection of the gift gives the emcee a chance to describe it. Such a format could be used for commercials on multi-sponsored programs or to show different lines for one sponsor.

Entertainment portion of the show fell flat however. An emcee needs more than his own laugh at his own jokes and perhaps the background of a studio audience helps keep the gags from falling too flat in this type of show.

Home viewer participation is invited by asking them to send in gags and a letter of 50 words saying why they would like to win the prize that is offered for the best letter. Winners are the first two contestants on the program, followed by a few pre-selected guests. Spontaneity, so necessary in this type of format, is lacking altogether, while a forced humor which rang false, seemed to be the keynote.

### AGENCY ACTIVITY

N. W. Ayer has produced two new films for the Waltham Watch time signals which tie in with woman's preoccupation with fashions. Theme of films, which were produced by Caravel, carries out the association of elegance and Waltham. Conover models display fashionable attire against sophisticated backgrounds. One film is built around a travel scene in a railroad station, and the other is placed in a box at the opera. Don McClure is television director for the agency.



This close-up view of four outstanding pipes, together with an offscreen commercial describing them, was one of the commercials used between the acts in the "Close-Ups" show, sponsored by the Marxman Pipe Co. over WNBT.

Duane Jones is planning a quiz type show that will have an unusual twist for its client Mueller Macaroni. The show will be the first sponsored presentation to appear on the opening night of DuMont's Wanamaker studios. According to Walter Ware, agency tele executive, this show will differ from other quiz shows in that all questions will be acted out with the idea of visual entertainment uppermost in mind. Each of the questions will be a well-integrated unit of

entertainment. Commercial on the program is expected to last for two minutes, and will be handled without sugar-coating as a straight-forward selling job.

Agency is preparing a brochure that will be sent to all dealers to further exploit the commercial possibilities of this television program.

McCann-Erickson announced the signing of a 52-week contract for Gruen Watch Company with CBS television station WCBW for a series of time signals. The signals will be on film, and run for 20 seconds each. They are scheduled to be shown twice a week beginning April 3rd. Carlo D'Angelo is television director for the agency.

Milton Biow Agency has prepared 20-second films for Bulova Watch Company. They were made by the Well-Got Trailer Service under the direction of Biow's tele director, Harry Spears. Cost of the film is in the neighborhood of \$500. The film is to be a background for the voice of the announcer who will give the correct time. Theme will feature church bells with the name Bulova spelled out letter by letter, and superimposed with each peal of the bells. Time signals will be shown over WNBT and WCBW.

Agency is planning presentations on behalf of its other clients, among which are Eversharp and Phillip Morris.

Compton Advertising Agency is devoting much time and energy to seeking smooth film presentations for telecasting. They have been working with both 35mm and 16mm films, which are complete video and audio packages. According to agency's James Manilla, "Today's tele stations are tomorrow's motion picture projection booths."

### SINGING COMMERCIALS

Television Trademarks, Inc., has been formed by the originators of the singing commercial, Alan Kent and Austen Croom-Johnson, in an attempt to marry their successful audio technique to the video. They have affiliated with Anson Bond, who has successfully produced many religious films, and are planning to merchandise their ideas via film. Thus far experiments have convinced them that the commercial should run about one minute and one-half. They believe that they can successfully translate into sight what they have done in sound. All films will be done on a cost basis with a royalty arrangement for the producers.

# QUESTION

Where can advertising agency television men find the solution to their film problems?



# ANSWER

Call BRyant 9-4786 and meet a versatile, producing film group. Your problems will be welcome.



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# EQUIPMENT

Philco requirements for the contested D.C. station . . .  
new lightweight portable equipment . . . latest patents.

**O**F INTEREST to equipment manufacturers and applicants alike is the breakdown of equipment which Philco estimated they would require for their proposed station in Washington, and the cost of each unit. Sources from which equipment will be obtained and a list of needed units were also listed as follows:

## Breakdown of Estimated Initial Costs — Equipment and Sources

1. Visual Transmitter (RCA) .....	\$ 22,500	
Monitoring Equipment (Philco) .....	10,000	\$ 32,500
2. Aural Transmitter (Philco) .....	8,719	
Monitoring Equipment (Philco) .....	3,148	12,137
3. Antenna Tower* (International Derrick) .....	12,995	
Antenna and Transmission Line (Philco) .....	7,000	19,995
4. Studio Technical Equipment .....	4,500	
No. 1 Control Room & Sync. Gen. (Philco) .....	2,000	
No. 2 Control Room & Sync. Gen. (Philco) .....	15,000	
Additional Sync. Gen. and Control Room Equip- ment (Philco) .....	3,500	
Fearless Dollies (3) (Fearless) .....	4,000	171,300
Camera Dollies (3) (Fearless) .....		
Mike Booms (2) (Mole Richardson) .....	35,900	
35 mm Movie Projector (2) (Simplex) .....	35,900	
16 mm Movie Projector (1) (RCA) .....		
Studio Cameras (6) (Philco) .....	48,000	
Movie Scanners (2) (Philco) .....	10,500	
5. Studio Lighting and Sound Proofing 300 KW Studio Lighting (Ross) .....	15,000	
Sound Proofing .....	19,000	34,000
6. Frequency and Modulation Monitors .....	1,630	1,630
7. Acquiring Land† .....	10,000	10,000
8. Acquiring or Construction of Buildings‡ .....	167,281	167,281
9. Other Items .....		
Link Equipment (Philco) .....	23,760	
Office Equipment .....	4,545	
Test Equipment (Philco) .....	1,275	
Two Mobile Units .....	50,000	79,580
10. Total .....		528,423

\* Tower has been erected.

† Land has been purchased.

‡ Figures obtained from contractors' bids include paving, plumbing, air conditioning and wiring.

## Status of Equipment Required

### On Hand

1. Aural Transmitter
2. \* Video Transmitter
3. \* Side Band Filter
4. 250' Antenna Tower
5. Land for Transmitter Building
6. Architects Plans for Transmitter Building
7. Television Relay Link (Washington to Philadelphia)

### To Be Obtained

1. Monitoring Equipment
2. Antenna & Transmission Line
3. Studio Link
4. Cameras (10)
5. Film Scanners (2)
6. Projectors (3)
7. Control Room Equipment (2)
8. Studio Equipment (Lights, Dollies, Mike Booms, etc.)
9. Mobile Units (2)

\* On order and immediately available.

## Mobile Equipment

Continuing the trend towards compact mobile equipment is Philco's entrance into the lightweight camera equipment field.

Their television engineering laboratories have developed a new 35 pound television camera and lightweight suitcase type control equipment, designed to allow quick portability and fast setting-up. Philco claims a television crew can have the equipment operating in a few minutes from a single portable master control unit. This new master control unit will permit the operation of several television cameras despite its comparatively small size. It has been found possible to operate three of these new lightweight cameras in various positions as much as 500 feet from the master control unit, so that complete coverage can be had at any large outdoor event. Though smaller and much lighter than the pre-war models, the new camera will give pictures which have more brilliance and higher definition. Reason for this is that it is designed around the latest types of television camera tubes, and both camera and control equipment are constructed with new type of electronic circuits.

## Magnetrons

Sylvania Electric Products, Inc., announced a new type of tunable magnetron, which is suitable for pulsed transmission within the 6 cm. — 7 cm. range, and may be used for frequency modulation applications where deviations up to 500 kc. are needed. This interdigitated magnetron may be operated with a permanent magnet, and mounted in any position.

## Bright Picture Transmission

RCA Victor Bright Picture Transmission Line is an important new development which according to RCA makes a three-fold increase in picture, when this is used with the improved antenna. The basis of this improvement is the addition of the new plastic Polyethylene for the insulating material which provides uniform space for the wires in the line.

It is claimed that this new development will also make it possible to receive programs from any television channel without necessitating a



# Professional Directory

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Consulting Radio Engineer

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*John Creutz*

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change in antenna direction when used with the latest type of RCA antenna.

## PATENTS

Two patents have been granted in recent weeks in the field of television.

### Receiving System

Heinz E. Kallmann, Boston, Mass., won No. 2,394,917 on a receiving system for television and other short wave transmitters capable of receiving signals from more than one transmitter (application for patent Oct. 6, 1943, nine claims allowed, not

assigned.)

The patented receiver is held to solve the problem of providing clear television reception in locations where television signals arrive from different directions. The system avoids the poor signal-to-noise ratio and the multi-path reception typical of all-way, all-directional antennae, by provision of a number of directional receiving antennae which may be individually tuned, directed, and located.

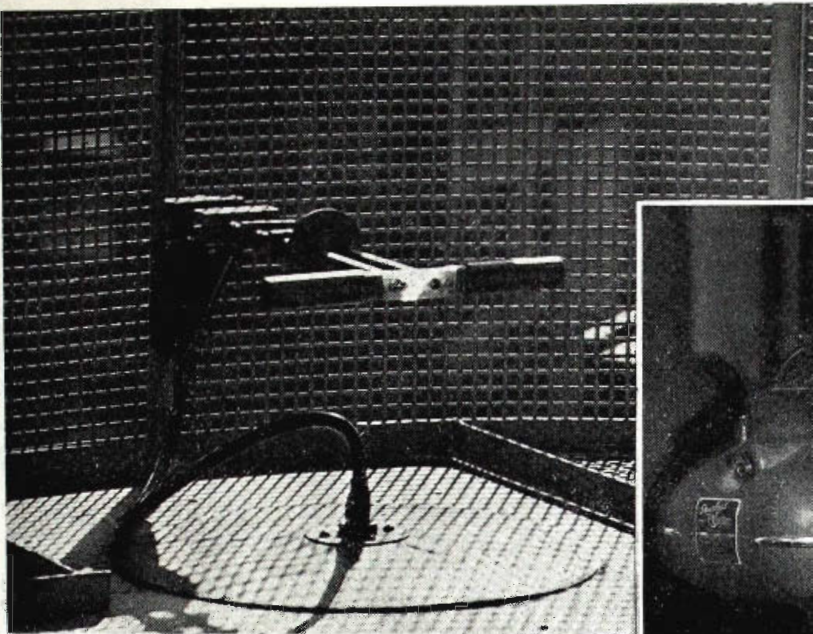
A common signal transmission line is associated with the different direc-

tional receiving antennae, and one or several individual television receivers may be coupled to and fed by the common transmission line. Built into this single line are electrical means constructed to avoid interaction and interference.

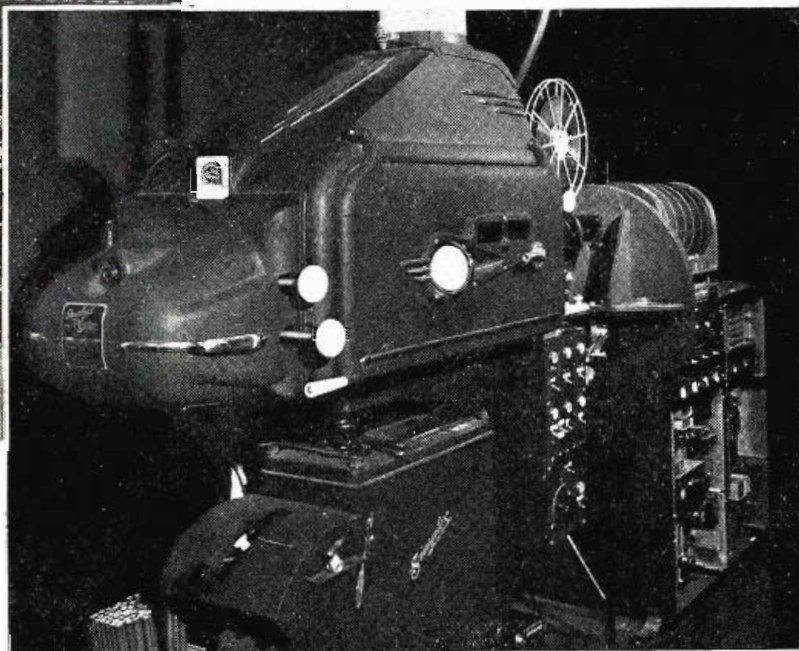
The arrangement as a whole is flexible, so that in case of relatively strong incoming signals and ordinary fully sensitive receivers, the output of the antennae may be directly combined by suitable passive networks matched to the impedance of the transmission system.



Below: New film pick-up equipment used in CBS' color demonstrations. In the foreground is the arc lamp with its control mechanism. The center section contains the scanning mechanism, while directly behind the film reel is the cylindrical unit, housing electronic dissector tube.



Above: The ten-inch horizontal bar of the receiving antenna, with a section of its Parabolic reflector in the background, stops all "ghosts" or unwanted reflections. This is part of the CBS ultra-high frequency, full color television system.



### Electron Multiplier

Joseph D. Schantz, Fort Wayne, Ind. received No. 2,396,023 on apparatus designed to vary automatically the amplifying characteristics of an electron multiplier associated with a television image analyzing tube, in accordance with the average light intensity incident upon the tube (application for patent April 26, 1943; seven claims allowed, assigned to Farnsworth Television and Radio Corporation.)

Conventional television practice,

the inventor explains, calls for means for maintaining a predetermined range of video signals irrespective of the average light intensity incident upon the image analyzing tube. A manual adjustment can be made to vary the size of the aperture which admits light reflected from the subject, and automatic controls have been developed for controlling the gain of a thermionic amplifier.

There are instances, however, when it is desirable to control automatically the gain of an electron multiplier type of amplifier, particularly when tele-

vision signals are transmitted by remote control.

The light responsive device covered by this patent has a photoelectric cathode and an anode. Included in the circuit is a resistor through which current is varied under the control of the photoelectric tube in accordance with the average light intensity upon the image analyzing tube. A voltage developed in the resistor is applied to one of the multiplier electrodes to control the gain of the multiplier stages.

## One Man's Reflections (continued from page 19)

be in the wrong direction from the viewpoint of the studio audience thus producing unforeseen and unpleasant results. Where motion-picture sections of the program are introduced, studio audiences will either not see these at all or will have to view them on special motion-picture projection screens provided for the purpose.

Similar troubles will arise with the studio audience wherever dubbed sound is introduced into the performance. It would be difficult to preserve any illusion or maintain the interest of the studio audience under such conditions. This will also be the case when backgrounds are introduced or injected electrically. The only way of showing such backgrounds to the audience would be through television receivers, one of which must be pro-

vided for each member or group of members of the audience.

From the commercial viewpoint, the presence of a studio audience might readily lead to an increased emphasis being placed by the advertiser or sponsor or the theatrical service, so to speak, which the station renders to him. If the sponsor becomes stage-struck, he will be more interested in the studio audience than in the home audience. This is contrary to the basic interests of television broadcasting and to its healthy development. Similar conflict of interests may arise in the minds of the studio staff, for the operating staff and the actors may never be quite sure whether they are playing primarily to the home audience or to the studio audience. Yet the techniques most applicable to each of these dif-

fer almost as much as those of the legitimate theatre, on the one hand, differ from those of the motion-picture on the other.

It would probably be more desirable in the interests of all concerned to permit studio audiences only in such cases as those in which the audience actually participate in the performance and is, in fact, a part of the acting audience group. It must be admitted that this rigid exclusion of the public from the television studio, except in rare instances, will require much self-control on the part of the broadcaster and the sponsor. The legitimate stage and the motion-picture studios have found the strength of character and the wisdom to do this effectively. Should not television, with so many additional reasons for such a procedure, follow in their path?



Complete text of proposed decisions in Washington, D. C., hearings . . . applications and withdrawals.

On the much disputed Washington allocations hearings, the summaries, as well as the rules of law, were drawn up by the Commissioners. Because of the importance of interpretation to applicants and the possibility of misinterpretation always present in condensations, we are printing the entire text.

## Proposed Decisions

The Commission proposes to grant the applications of Bamberger Broadcasting Service, Inc., The Evening Star Broadcasting Company and the National Broadcasting Company, Inc. It proposes to deny the application of Capital Broadcasting Company. Insofar as the applications of Allen B. DuMont Laboratories, Inc. and Philco Products, Inc. is concerned, the proposed decision announces that

"The Commission is unable at this time to make a choice between Philco and DuMont and accordingly, defers a decision on this point until after the conclusion of oral argument on this proposed decision in which Philco and DuMont may present their views."

Parties are requested at the oral argument to direct their attention specifically to that portion of paragraph 6 of the conclusions concerning the importance of a network owning a television station in Washington, D.C.

### Before the FCC

In the Matter of

BAMBERGER BROADCASTING SERVICE, INC.

New York, N. Y.

For Construction Permit

CAPITAL BROADCASTING COMPANY

Washington, D. C.

For Construction Permit

ALLEN B. DuMONT LABORATORIES, INC.

Passaic, N. J.

For Construction Permit

THE EVENING STAR

BROADCASTING COMPANY

Washington, D. C.

For Construction Permit

NATIONAL BROADCASTING COMPANY, INC.

New York, N. Y.

For Construction Permit

PHILCO PRODUCTS, INC.

Philadelphia, Pa.

For Construction Permit

B-234

DOCKET NO. 7014

FILE NO. B1-PCT-41

DOCKET NO. 7015

FILE NO. B1-PCT-36

DOCKET NO. 7016

FILE NO. B1-PCT-16

DOCKET NO. 7017

FILE NO. B1-PCT-141

DOCKET NO. 7019

FILE NO. B1-PCT-19

DOCKET NO. 7021

FILE NO. B1-PCT-38

### Appearances

Frank Scott and Charles H. Singer, on behalf of Bamberger Broadcasting Service, Inc.; W. Theodore Pierson and Ralph L. Walker, on behalf of Capital Broadcasting Company; William A. Roberts, on behalf of Allen B. DuMont Laboratories, Inc.; D. M. Patrick and Karl A. Smith, on behalf of the Evening Star Broadcasting Company; John T. Cahill, Charles F. Detmar, Jr., and Gustav Margraf, on behalf of the National Broadcasting Company; Louis G. Caldwell, on behalf of the Philco Products, Inc.; Harry M. Plotkin, on behalf of the Federal Communications Commission.

This proceeding involves the allocation of the four available commercial television channels in Washington, D. C. Six applicants have applied for these four channels. They are Bamberger Broadcasting Service, Inc., Capital Broadcasting Company, Allen B. DuMont Laboratories, Inc., The Evening Star Broadcasting Company, National Broadcasting Company, Inc., and Philco Products, Inc. Hearings were held on their applications on January 21, 22, and 23, 1946. All of the parties have waived their right to file proposed findings of fact and conclusions of law.

### Bamberger Broadcasting Service, Inc.

1. Bamberger Broadcasting Service, Inc., of New York, N. Y., is a wholly-owned subsidiary of L. Bamberger & Company, a retail department store in Newark, N. J., which, in turn, is wholly-owned by R. H. Macy and Co., Inc., a retail department store in New York City. The consolidated balance sheet of R. H. Macy and its subsidiaries as of July 28, 1945 indicates its total stock and surplus to be worth \$62,348,200.06. The combined balance sheet of the applicant shows a total capital and surplus on December 29, 1945 of \$1,184,573.37. Bamberger Broadcasting Service owns a 50 kw. AM station, WOR, and an FM station, WBAM, both in New York City. It is affiliated with the Mutual Broadcasting network and owns about 20% of its stock. Mr. McCosker, chairman of the applicant's Board of Directors, is also chairman of the Mutual Board. Bamberger Broadcasting Service has an application pending before this Commission for a television station in New York City and for one in Philadelphia but at the hearing it stated that it intends to withdraw the Philadelphia application.

2. The applicant proposes to make Washington programs of national interest available to Mutual affiliates with television sta-

tions and possibly to the Yankee Network; these arrangements, however, are only in the discussion stage. Mutual at present has an AM affiliate in Washington, WOL, which has not made an application for a commercial television station.

- The applicant has purchased land located at Brandywine and 40th Streets, N.W., Washington, D. C., at a cost of \$43,000. While plans for the transmitter and tower which are to be located there have been drawn, no site has been chosen for studio facilities, which are intended to be located in downtown Washington. The 5000 microvolt contour, assuming a radiated power of 30.25 kilowatts, will embrace 975 square miles with a population of 907,776. Within the 500 microvolt contour, there will be included 4,350 square miles with a net coverage of 1,145,079 people. These calculations are made for Channel 5, 76-82 megacycles, which has been requested by the applicant.\* The total estimated cost of the proposed equipment, construction and installation is \$503,400, the cost of the transmitting plant being estimated at \$238,400, studio and offices at \$205,000 and field equipment at \$60,000.
- The estimated cost of operation for the first year on a 28-hour schedule of programming is \$547,308 of which technical expense will amount to \$174,320 and program expense \$312,860. For the second year, a minimum rise of 10% in cost of operation is expected. No projected income from the sale of time has been estimated. No special refinancing is expected to be made in connection with the proposed station; expenses in the pre-profit period will be borne by both the applicant and Macy.
- Although the applicant has been operating WOR since 1922 and WBAM since 1940, neither of its affiliates has ever owned or controlled the operation of a television station. However, since 1943, employees of the applicant have had experience in the operation of television studio and console equipment in connection with the production of television programs over WABD — the DuMont station in New York City — and WRGB — the General Electric station in Schenectady. Over 50 hours of live programs were produced by these employees who have become familiar with all phases of television operation except the television transmitter. Key employees will supervise the operation of the Washington station and at the same time will continue their work in New York. It is proposed that a local resident, as yet not engaged, will manage the station and a full time program executive will be employed for Washington. Twenty-six of 32 people planned to be employed in the engineering department of the Washington station have been named.
- A program organization of 29 persons is planned and a minimum 28-hour weekly schedule of programs is proposed. Some of the programs have already been televised by employees of applicant and other programs will include local and public events. Programs will be relayed from New York City by coaxial cable when such facilities are available.

### Capital Broadcasting Company

- The Capital Broadcasting Company is a family corporation. Ninety-five percent of its stock is owned by Joseph Katz, its president. Ben Strouse, his son-in-law, is vice president-general manager and owns 2 1/2% of its stock. Charles Harrison is secretary and owns 2 1/2% of its stock. Kate Katz, wife, and Ruth Strouse, daughter, of Joseph Katz, are treasurer and assistant treasurer, respectively. These persons are all residents of Baltimore, Maryland. Mr. Katz, his wife and daughter own 94.12% of the Joseph Katz Co., an advertising agency in Baltimore, Maryland, and New York, N. Y., Mr. Katz himself owning 51.47% of the stock. Ben Strouse has a 26 2/3 interest in a retail music store in Baltimore, Maryland. The net worth of the Joseph Katz Company as of October 31, 1945, was \$364,202.86 and the total capital stock and surplus of the applicant as of November 30, 1945, was \$83,748.82. During the last seven or eight years, the Joseph Katz Company has had a net income before taxes of \$100,000 to \$125,000 per year.
- Capital Broadcasting Company is the licensee of station WWDC, in Washington, D. C., and has an application pending for change in frequency and increase in power to 50 kw. It also has applied for an FM station for Washington, D. C. In addition, Joseph Katz and Ben Strouse each have a 25% interest in WHOW, Inc., which has applied for an AM station in Baltimore, Maryland, and which proposes to file an FM application for the same city.
- The applicant has an option for a site one mile north of Silver Spring, Montgomery County, Maryland, at which it intends to

\* Unless otherwise indicated, the coverage figures used in these findings are those given by the applicants at the hearing, and all have been made substantially in accordance with the methods prescribed by the Commission's Standards of Good Engineering Practice. These figures may, therefore, be used for comparative purposes and there is no necessity at this time for the Commission to find whether or not the applicants will, in fact, serve the actual number of persons or areas claimed by them.



locate both its present AM transmitter and its proposed television transmitter. No evidence was offered concerning the location of studio facilities. The 5000 microvolt contour, assuming a radiated power output of 12.2 kilowatts, will embrace 744 square miles with a population of 926,667. Within the 500 microvolt contour there will be included 3,880 square miles with a net coverage of 1,185,358 people. These calculations are made for Channel 4, 66-72 megacycles, which has been requested by the applicant.

- The estimated construction costs of the applicant are \$276,810, which includes transmitting, film, studio, master control and pickup equipment. Estimated television operating costs for the three years 1947, 1948 and 1949 are \$675,900. These funds are proposed to be made available to applicant in the following manner:

An initial loan in 1946 from Joseph Katz Co. . . . .	\$ 170,000
Another loan in 1947 from Joseph Katz Co. . . . .	150,000
Estimated profit WWDC after taxes 1946 . . . . .	48,000
Estimated profit WWDC before television expense 1947, 1948, 1949 . . . . .	240,000
Estimated revenue from television 1947 . . . . .	75,000
Estimated revenue from television 1948 . . . . .	150,000
Estimated revenue from television 1949 . . . . .	200,000

Total . . . . . \$1,033,000

This total is about 10% larger than the total estimated expenses of \$952,710 during the same period. To make up any additional and unexpected television deficits, Mr. Joseph Katz has further pledged another \$300,000. Arrangements have been made for a credit purchase of necessary apparatus.

- With respect to the \$80,000 in annual profits before taxes which WWDC expects to make, it should be pointed out that in no year has WWDC succeeded in making such profits. At the hearing applicant justified this estimate on the intention of the Joseph Katz Co. to forego the payment of agency fees from WWDC in connection with sale of time; Mr. Katz to waive his whole salary from WWDC; Mr. Strouse to take a reduction in salary of \$10,000; and in a saving of \$8,000 by reductions in promotional expenses. Applicant's estimate of profits is based further on the opinion of applicant's officers that the advertising revenues of WWDC in post-war years will remain the same or grow larger even if the Commission licenses as many as twelve FM stations to serve Washington. At present, 70-75% of WWDC's programs are already commercial.
- Applicant's estimate of revenue from television operations for 1947 is based upon a rate of \$100 an hour for 14 hours a week. Applicant's estimate of revenue from television during the first three years of operation is based upon conversation with advertisers and a prediction of one officer that 20,000 and of another that 100,000 television receivers would be in use in Washington by 1948. Television program costs will be low through the extra effort of applicant's employees.
- While the applicant has several years experience in AM broadcasting, it has never owned or controlled the operation of a television station. Its proposed staff includes Ben Strause as general manager of all applicant's activities, Ira Walsh as television manager, and Don Beville as technical director. E. Arthur Hungerford, Jr., will be employed four days each month as television advisor. Mr. Walsh, who will also be in charge of programming, has had some experience in the production of television programs from 1938 until 1941. Mr. Beville has not had any experience in the operation of a television station, but he stated that he has become familiar with the literature in the field. It is proposed to employ a technical staff of 22 people in connection with television activities. This staff will be trained under the supervision of Mr. Walsh and Mr. Beville at the Capital Radio Engineering Institute with the applicant paying for one-half the cost of course of study.
- A program organization of 18 persons is planned under the direction of Mr. Walsh and a weekly schedule of 28 hours of programs is proposed. Many shows now produced over WWDC will be adapted to television broadcasting and the program will include local and public events. No plans have been made for the televising of programs originating from outside of Washington.

### Allen B. DuMont Laboratories, Inc.

- The stock of Allen B. DuMont Laboratories, Inc., Passaic, New Jersey, is divided into two groups, Class A and Class B. There are 1,046,040 shares of Class A stock issued, which is held by about 8,000 stockholders, of whom only five persons own more than 1% of the total. Allen B. DuMont owns 92,050 Class A shares, and Paramount Pictures, Inc., owns 43,200 Class A shares beneficially but not of record. All of the 560,000 shares of Class B stock is owned by Paramount. Class A stock elects four of seven directors and also the president and vice president. Allen B. DuMont is president and Leonard F. Cramer is vice president. Class B stock elects three directors and also the secretary and treasurer. The secretary is Bernard Goodwin and the treasurer is Paul Raibourn.
- A condensed balance sheet of the applicant as of December 2, 1945, shows the value of its capital stock and surplus as \$2,814,647 with current assets of \$3,455,265 and current liabilities of \$1,160,303. DuMont manufactures radio appliances including television receivers. It is the licensee of commercial television station WABD in New York City and has applied for commercial television stations in Cleveland, Cincinnati, and Pittsburgh, all of which would be connected with the Washington and New York stations into a network.
- Applicant at the present time operates experimental television station W3XWT in Washington on Channel No. 5, 76-82 megacycles. This station is located at the Harrington Hotel in downtown Washington. This same site under lease for four more years is to be used for its proposed commercial television station and plans have been made for the construction of transmission and studio facilities at that place. The antenna is to be placed on a tower already built on the premises and will be 250 feet above sea level. Assuming an effective radiated power of 6.15 kilowatts, the 5000 microvolt contour will embrace 125 square miles with a population of 737,000. There will be included within the 500 microvolt contour 512 square miles with a coverage of 847,000 people. These calculations have been made for Channel 5, 76-82

megacycles, which has been requested by the applicant.\* At the hearing applicant stated that a higher antenna with resulting wider coverage would ultimately be desirable, but that in the early stages it felt it was expedient to keep the transmitter near the conveniently located studio for purposes of experiments on the transmitter. Further during this period the lower height would make the antenna more easily accessible than in the case of a higher antenna. Applicant also stated that the choice of antenna site was based on the strong signal it will give in downtown Washington, the large expense that has gone into the construction of present facilities there and the fact that operation could begin sooner than if a new location was chosen. The applicant estimates coverage effectiveness to be very large so far as the marketing and buying power of metropolitan Washington is concerned. In the future, if it believes the need exists, a change will be made. At present it feels the coverage is adequate.

- Applicant has had extensive experience in the technical and production aspects of television. It will have available many trained persons to operate the proposed Washington station. It has made plans for the use of only 31 persons in the operation of its station because of the experience of the personnel and the fact that many of its network programs will originate in New York.
- A capital investment of approximately \$115,000 has been made in the Washington experimental station. The estimated capital investment required for the commercial station is \$396,355, including studio, transmission and pickup equipment. The operating costs the first year are estimated at \$396,052, the second year, \$221,907.72. The income from television operations for the first year is estimated to be \$224,465 and \$614,732.30 for the second year. Both estimates are based on network operation. The applicant estimates that 33,000 receivers will be in Washington by the end of 1948 and that until 15,000 are in use, the station will have an operating deficit. The proposed advertising rate would be \$180 per half hour the first year and \$207 for the second year based on the estimated number of receivers in use.
- Applicant has made plans for a minimum weekly program schedule of 28 hours which will make use of its experimental facilities and past experience in both production and transmission. The program will include local and public events. In the first year of operation an average of 13½ hours of commercial shows and 14 hours of sustaining shows are planned. Use will be made of the coaxial cable or relays for its network and the station will televise shows originating from outside of Washington.

### The Evening Star Broadcasting Company

- The Evening Star Broadcasting Company of Washington, D. C., is a wholly-owned subsidiary of the Evening Star Newspaper Company of Washington, D. C. Samuel Kauffman, president of the applicant company is treasurer of the newspaper company. The editor of the paper is Theodore W. Noyes, the president, Frank B. Noyes, and the secretary, R. M. Kauffman. B. M. McKelway, a director of the paper, is vice president of applicant and W. R. Little, comptroller of the paper, is secretary-treasurer. All but 2½% of the paper's stock owned by Mr. McKelway is held by descendants of its founders. All the officers and directors of both the paper and the applicant have been Washington residents for many years, some all their lives. As of December 13, 1945, the balance sheet of the Evening Star indicated its capital stock and surplus to be \$5,642,511.57. The capital and surplus of the applicant as of December 31, 1945, was \$316,932.74. The applicant is the licensee of station WMAL in Washington, which is an affiliate of the American Broadcasting Company network. It is proposed to affiliate the television station with some network but no commitments have been made in this regard.
- The applicant has an option for the lease of a site at the campus of American University located at Massachusetts and Nebraska Avenues, N.W., Washington, D. C., on which it would build a transmitter, station and tower for television and FM. By agreement the applicant's facilities will be made available to the university for instructional purposes. The university will be allowed to broadcast without cost programs in furtherance of its educational program. A studio would be built on the campus in a building costing between \$50,000 to \$60,000, while the cost of the other technical improvements on the university campus is estimated at \$180,000 to \$190,000. Applicant has purchased a site at the corner of 12th and K Streets, N.W., Washington, D. C., on which it intends to erect a million dollar office building to house its present AM operations and any television and FM operations it may have. Studios here would cost \$100,000. The 5000 microvolt contour, assuming a radiated power of 14.25 kilowatts, will embrace over 816 square miles with a population of 891,421. There will be included within the 500 microvolt contour, 3,930 square miles with a net coverage of 1,082,936 people. These calculations are based on the use of Channel 4, 66-72 megacycles, which was requested by the applicant.
- The paper has authorized the purchase of all or any part of an issue of bonds by the applicant in a total amount not to exceed \$800,000, when and as the same may be offered by the broadcasting company. No public offering of these debentures is contemplated. Further unsecured loans from the paper to the applicant are also authorized. To finance the cost of its new million dollar building, a mortgage already over-subscribed will be taken from local Washington banks in the amount of about \$700,000 to \$750,000. The estimated cost of the first year's operations are from \$300,000 to \$500,000. No estimates of future revenue have been made.
- Applicant has never owned or controlled the operation of a television station. It plans to use its present AM staff, supplementing it with whatever personnel is necessary. If the television operations are separate it estimates it would need 42 people in the program department and 30 engineers. The cost of the additional personnel is estimated at \$216,000 a year. No television programming plans have been made on the grounds that the applicant prefers in the beginning to experiment with all types of programs and techniques. Its general manager has had radio experience in Washington for the last 23 years and it is proposed to have a balanced program with proper emphasis on local and public events. For some time all programs will be sustaining and originate only in Washington.

\* Applicant did not submit figures as to coverage at the hearing. The figures used in this finding are those contained in the application.



## National Broadcasting Company

1. The National Broadcasting Company, Inc., is a wholly-owned subsidiary of Radio Corporation of America. NBC owns and operates six stations engaged in AM broadcasting—including WRC, Washington, D. C.—an FM station in New York, and one television station, WNBT, New York. In addition, NBC operates a number of shortwave broadcasting stations and a network of about 155 affiliated AM stations. A consolidated balance sheet of RCA and its domestic subsidiaries as of November 30, 1945, indicates its capital stock and surplus to be worth \$93,951,258. A preliminary balance sheet at December 31, 1945, shows the capital stock and surplus of the applicant as \$8,614,960.60. NBC has plans for a national television network of independently owned affiliated stations. Applications have been filed for television stations in Cleveland, Chicago and Los Angeles, as well as the instant application. Applications have been filed for FM stations in Washington, D. C., Cleveland, Chicago, Denver and San Francisco.
2. In December, 1941, National Broadcasting Company received a construction permit for a commercial television station that was to be located at the Wardman Park Hotel in Washington, D. C., the site of its experimental station, whose license lapsed in June, 1942. The construction permit for the commercial station was surrendered because the war made it impossible to complete the station. The presently proposed station is to be located at this same site, the Wardman Park Hotel, on which the applicant has an option on space for a transmitter, studio and antenna. Plans have been made and the proposed cost of the transmitter is \$117,000, audio-video facilities, \$106,000, live talent theater, \$91,700, and field equipment, \$60,000. Architectural costs are to be \$140,000. Additional studio space will be used in applicant's premises on 14th Street and New York Avenue, N.W., Washington, D. C. The 5000 microvolt contour, assuming a radiated power of 13.3 kilowatts, will embrace 575 square miles with a population of 850,000. There will be included within the 500 microvolt contour 3,370 square miles with a net coverage of 1,153,600 people. These calculations have been made for Channel 4, 66-72 megacycles, which has been requested by the applicant.
3. Applicant has had extensive experience in the technical and production aspects of television. It will have available many trained persons to operate the proposed Washington station. A detailed plan for a large staff has been completed and many experienced persons who will occupy supervisory positions have already been named. Applicant's general manager in Washington has had many years of radio experience in Washington.
4. Applicant has made available the total sum of \$520,000 for the installation of its Washington television station. Its estimated operating expenses for a 28-hour a week program of network operation is \$61,000 per month; for 67 hours a week, \$113,438 per month. Its estimated revenue, based on 28 hours of operation per week, is \$25,972 for the first year. Deficits will be made up from regular operating funds and surpluses of NBC.
5. Applicant has made plans for a minimum 28-hour weekly program which will make use of its experimental facilities and past experience in both production and transmission. The program will include local and public events. Use will be made of the coaxial cable for its network to televise programs originating from outside of Washington.

## Philco Products, Inc.

1. Philco Products, Inc., is a wholly-owned subsidiary of the Philco Corporation, manufacturer of radio and other electrical appliances, including television receivers. Philco Products is the national distributor of the parent manufacturing corporation and has a special division to handle broadcasting operations. The balance sheet of Philco Corporation at December 31, 1944, showed a total capital stock and surplus of \$16,696,595 while that of Philco Products showed a capital stock and surplus of \$9,671,711, which should be added to the undetermined 1945 profit to show its present financial status. With few exceptions, the officers of the two corporations are the same and the directors of both are exactly the same. Twelve persons or firms own more than 1% of the total stock, 1,372,143 shares, of which the largest holder is Cross and Co. with 1.98%. Applicant owns and operates a commercial television station WPTZ in Philadelphia. Except for the latter and the proposed Washington station, it does not intend to own or operate any other commercial television stations. It has at present an experimental television station in Philadelphia, 18 experimental television relay broadcast licenses and special temporary authorizations for a test transmitter and two point-to-point communication systems. It will connect the Philadelphia and Washington stations either by its own relay system in which it has already invested \$150,000 or by coaxial cable.
2. Applicant has purchased a site in Arlington County, Virginia upon which it proposes to erect at a cost of \$167,000 a building to house its television station, including transmission and some of its studio facilities. Its antenna will be located on a tower already erected on the site. In addition to these facilities a studio in downtown Washington will be obtained. The total cost, including building, transmission and studio facilities and pickup equipment for the proposed station is estimated at \$528,423. The 5000 microvolt contour, assuming a radiated power of 3.34 kilowatts, will embrace 350 square miles with a population of \$47,000. Within the 500 microvolt contour there will be included 2,640 square miles with a net coverage of 1,002,000 people. These calculations have been made for Channel 4, 66-72 megacycles, which has been requested by the applicant.\*
3. Applicant has had extensive experience in the technical and production aspects of television. It will have available many trained persons to operate the proposed Washington station. It has made plans for a technical and production staff of 190 people at maximum operation. In the beginning a somewhat smaller staff of about 135 is expected to be adequate for satisfactory service. A local resident, as yet unengaged will be employed as general manager.
4. Philco Corporation will furnish such sums as will be necessary to construct and operate applicant's proposed station. Its monthly cost of operation is estimated at \$61,500 per month or about \$750,000 a year. No estimate has been made of revenue from operation of the station but a maximum ceiling of 60% has been set on commercial programs.
5. Applicant has made plans for a weekly program of 37½ hours at full-fledged operation and will make use of its experimental facilities and past experience in both production and transmission. The program will include both local and public events. Programs originating in Philadelphia will be presented in Washington.

## Conclusions of Law

1. The Commission has consistently held that where the number of applicants exceeds the facilities available, in choosing among the applicants preference will be given other factors being substantially equal to local interests. In the Commission's opinion, maximum opportunity for local expression and development of community activity is afforded by licensing local persons who are qualified rather than persons from other cities. In this case, the Evening Star Broadcasting Company is the only local interest. The Capital Broadcasting Company is the licensee of a local station but all of its stockholders reside in Baltimore, and aside from their interests in WWDC have their business interests outside of Washington. As to the Evening Star Broadcasting Company, it has selected a transmitter site which will render service to the entire metropolitan area of Washington and has made extensive plans for downtown studios. It is well equipped financially to undertake the construction and operation of a television station. Although it has had no experience in the operation of a television station, it has had extensive experience in the operation of an AM station in Washington. The Commission concludes that the Evening Star Broadcasting Company is qualified to operate a television station. The Commission also concludes that since the Evening Star Broadcasting Company is composed of local people, public interest, convenience, or necessity would be served by the issuance of a construction permit to it.
2. The remaining five applicants fall into two groups. In the first group is Bamberger Broadcasting Service and Capital Broadcasting Company—which are not the licensees of any commercial television stations—and in the second group are National Broadcasting Company, Allen B. DuMont Laboratories, Inc., and Philco Products, each of which is the licensee of one commercial television station. The Commission is of the opinion that where there is a choice between two applicants, one of whom has a television station and another which does not, public interest is better served by granting a license to the newcomer other factors being substantially equal rather than to the person already having a television station. Under this policy, it is possible for the maximum number of qualified people to participate in television and not have it restricted to a few large interests.
3. Considering the application of Bamberger Broadcasting Service it appears that it has selected a transmitter site which will render service to the entire metropolitan area of Washington.

It is well equipped financially to undertake the construction and operation of a television station. Although it is not, and has not been, the licensee of a television station, its personnel have acquired experience in television operations through presentation of television programs over WABD and WRGB. The Commission concludes that the Bamberger Broadcasting Service is qualified to operate a television station. The Commission also concludes that since the Bamberger Broadcasting Service has no other television station, public interest, convenience or necessity would be served by the issuance of a construction permit to it.

4. As to the Capital Broadcasting Company, it appears that it has selected a transmitter site which will render service to the entire metropolitan area of Washington. While its proposed television manager has had some experience in television operations, the organization as a whole seems to have very little experience in the operation of a television broadcast station in Washington. It has had experience in the operation of an AM station in Washington. A serious question arises in the case of the financial qualifications of Capital Broadcasting Co. On the basis of its present balance sheet, Capital Broadcasting Co. is concededly not financially qualified to operate a television station, and although it proposes to sell time on its television station at an early date, admittedly this will not be enough to support the operation of the station. In order to meet this deficiency, the principal stockholder has proposed to make extensive loans to the station, to forego agency commissions for the sale of time on WWDC, and to waive any salary from the station. In addition, the manager of the station has proposed, if necessary, to take a salary reduction of \$10,000 a year. Economies in the operation of the station are also proposed. Even this will not produce sufficient revenue unless WWDC is capable of making \$80,000 a year before taxes. Applicant has stated that it believes it can make such a profit despite the fact that it has never made any such profits even during the war years when it has sold as much as 70 to 75% of its time. The Commission is of the opinion that on the basis of the foregoing facts, serious question is raised concerning the financial qualifications of Capital Broadcasting Co. to construct and operate a commercial television station.

\* The population estimate contained in this finding is based upon the 1940 census. Applicant utilized figures based upon estimated population for the District of Columbia as of July 1, 1944.



cial television station at this time. The ability of Capital Broadcasting Co. to construct and successfully operate a television station depends too much upon the ability of Station WWDC to earn money at higher rate than it has ever earned before. The Commission is of the opinion that with the repeal of the excess profits tax, with the greater availability of facilities in advertising media competitive with radio, and with the expectation that in the near future the Commission will license as many as 12 FM stations in Washington, it is extremely doubtful that WWDC can maintain such a high earning rate without unduly degrading its program service. In addition, the successful operation of a television station by Capital Broadcasting Company is dependent to a great extent upon the applicant's ability successfully to sell time on its television station at an early date and on its ability to maintain its operating expenses at a point substantially lower than that suggested by any of the other applicants. The Commission is of the opinion that it is much too early at this stage to predict with any accuracy what the operating revenues of television stations are going to be. The Commission is not convinced by the showing made by Capital Broadcasting Company that it will be in a position not only to construct its television station but to operate it for several years in the event that television should not get started as quickly as the applicant thinks it will, or in the event that it should not be possible to operate WWDC as profitably as applicant predicts. In view of these facts and in view of the fact that there are other applicants who are well qualified to construct and operate a television station in Washington at this time, the Commission does not believe that public interest, convenience, or necessity would be served by the issuance of a construction permit to Capital Broadcasting Company.

5. That leaves the choice for the two remaining television channels between National Broadcasting Company, Allen B. DuMont Laboratories, Inc. and Philco Products, Inc. The first two each own a commercial television station in New York City, and Philco is the licensee of a commercial television station in Philadelphia. All three applicants have extensive experience in television and all three would be qualified to construct and operate a television station in Washington. On the basis of the site chosen National Broadcasting Company and Philco Products, Inc. would render service to a substantially greater area and population than Allen B. DuMont Laboratories, Inc. As a matter of fact the coverage proposed by the DuMont station, amounting to 98.5% of the population in the metropolitan area of the District of Columbia is smaller than that of any other application involved in this proceeding.

6. The importance of Washington as an origination center of programs for a television network was stressed at the hearing. Since Washington is the nation's capital, there are many important events occurring here which are of great interest to audiences throughout the United States. The Commission is of the opinion that the effective operation of a nation-wide television network will be greatly aided by network ownership of a television station in Washington. It should be noted that this finding is limited to television only where much development and experimental work remains to be done. Nothing herein said is to be construed as a finding concerning network ownership of AM or FM stations. National Broadcasting Company has proposed a television nation-wide network and has had extensive experience in the operation of a nation-wide AM network. Philco proposes to conduct an experimental relay service between Philadelphia and Washington but has no plans for a nation-wide network. DuMont has no plans for a nation-wide network but expects to connect its New York station into a network with television stations in Washington, Pittsburgh, Cleveland and Cincinnati, if these applications are granted. The National Broadcasting Company application for a television station in Washington should, therefore, be preferred over that of Philco and DuMont. So far as Philco is concerned the ownership of a television station in Washington is not associated with the operation of a network, except possibly to connect its Washington and Philadelphia Stations. So far as DuMont is concerned, while it does have plans for a network, it is only of a very limited sort and is to be composed of apparently only five DuMont stations and not of many independently affiliated stations as in the case of National Broadcasting Company. Moreover, as has already been pointed out, the site proposed in the DuMont application is substantially inferior to that proposed by National Broadcasting Company. Accordingly, a construction permit should issue to National Broadcasting Company.

7. This leaves the choice for the final channel between DuMont and Philco, both of which are qualified to construct and operate a television station in Washington. In favor of DuMont is the fact that a Washington outlet would be of assistance in connection with the network operation which DuMont proposes. In favor of Philco is the fact that the site it proposes is superior to that proposed by DuMont. Also, the ownership of a station in Washington would be helpful in connection with the experimentation being conducted by Philco in relaying programs between Washington and Philadelphia. The Commission is unable at this time to make a choice between Philco and DuMont and accordingly defers a decision on this point until after the conclusion of oral argument on this proposed decision in which Philco and DuMont may present their views.

8. The Commission is not unmindful of the fact that a grant of the DuMont application would make possible the establishment of a commercial television service in Washington at an earlier date than is otherwise possible because DuMont is already operating an experimental station in Washington. The Commission believes that this factor should not be controlling for two reasons. In the first place, the Commission has consistently declared that the issuance of an authorization for an experimental station is for experimental purposes only, and may not be used by the applicant as an entering wedge for securing a license for a commercial station. Therefore, the application of Allen B. DuMont Laboratories, Inc. must be considered on the same basis as the other applications — as though it were not the licensee of an experimental station. In the second place, the establishment of television in Washington at an early date should be possible because National Broadcasting Company has all the equipment necessary for the installation of a television station.

9. There remains for consideration the question of what channels should be assigned to the successful applicants. From the evidence at the hearing it appeared that equipment for Chan-

nels No. 4 and 5 will be available at an earlier date than for Channels No. 7 and 9. National Broadcasting Company has requested Channel No. 4 and has stated that it has on hand the equipment for that channel and that this equipment cannot readily be used on any other channel. In the interest of the early establishment of television in Washington, Channel No. 4 should be granted to National Broadcasting Company. So far as Channel No. 5 is concerned DuMont has applied for this channel and could start operation at an early date if its application were granted. Philco Products, Inc. has applied for Channel No. 4. However it does not have the equipment for this channel on hand and although it states that it has such equipment on order, it should be possible to convert this equipment for operation on Channel No. 5 as readily as on Channel No. 4. Moreover, Philco Products has its tower already constructed and if its application were granted it could proceed expeditiously with the construction of a station. Since neither Bamberger Broadcasting Service, Inc. nor the Evening Star Broadcasting Company — the other two successful applicants — have any equipment on order or towers constructed, the Commission is of the opinion that the early establishment of television in Washington will be advanced if Channel No. 5 is reserved for assignment to either DuMont or Philco, whichever is the successful applicant. This leaves Channels No. 7 and 9. There appears to be no substantial difference between these two frequencies. Channel No. 7 will be granted to the Evening Star Broadcasting Company and Channel No. 9 will be granted to Bamberger Broadcasting Service.

10. All construction permits to be issued will be expressly conditioned upon a showing that the transmitter site chosen complies with the Rules and Regulations of the Civil Aeronautics Administration.

## NEW APPLICATIONS

One new commercial and two experimental applications were filed with the FCC last month. On the other side of the fence, however, were four withdrawals, two of them from Detroit on the eve of hearings to determine who would get the final allocations. (For "Television Outlook in Detroit," see page 10.) WJR, The Goodwill Station, Detroit, and WGAR, Cleveland, both CBS affiliates, International Detrola, Detroit, and Yankee Network, Providence, were the four who pulled out of the video field.

## COMMERCIAL APPLICATION

### Toledo, Ohio

Name—Fort Industry Company

Address—506 New Center Building

Officers—J. Harold Ryan, Vice-President and Treasurer

### Estimated Costs

1. Visual transmitter	} \$ 60,000
2. Aural transmitter plus tubes	
3. Antenna System	14,000
4. Studio Equipment	95,000
5. Studio Lighting	1,500
6. F & M Monitors	3,500
7. Building	10,000
8. Other item	5,000

Estimated Total Costs \$189,000

Equipment—RCA

Channel—#13

Kilocycles—210-216 mc

ESR—928

Antenna

Height, sea level—841 feet

Height, ground level—241 feet

Transmitter location—R.F.D. #3, Perrysburg, Ohio

Population—453,886

Size of area—2,760 square miles

Engineering Consultant—C. M. Jansky, Jr., Washington, D. C.



Lawyers—Fred Albertson, Don Lohnes & Albertson, D. C.  
 Misc.: 60% commercial programs or 73 hours sponsored a month; wants chain programs if available. Outside pick-ups, 11; studio production, 60; film 50 — total 121 a month. Fort owns WGBS, Miami; WSPD, Toledo; WLOK, Lima, Ohio; WWYS, Wheeling, West Virginia; WAGA, Atlanta, Georgia. Entertainment shows, 60%.

## EXPERIMENTAL APPLICATIONS

### Boston, Mass.

Name—Continental Television Corporation

Address—150 Causeway Street, Boston 14, Mass.

Officers—Richard L. Campbell, President; Grant J. Holt, Vice-President; Abraham Zimble, 11 Nichols Street, Chelsea, Mass.

#### Estimated Costs

1. Vis. transmitter	}	\$ 20,000
2. Aural transmitter plus tubes		
3. Antenna System		
4. Studio Equipment		15,000
5. Studio Lighting	}	6,600
6. F. & M. Monitors		
7. Land		
8. Building		
9. Other item		

Estimated Total Costs for one year operation \$ 52,000

Estimated Total Costs of research program \$100,000

Channels—7, 9 and 13 and selected frequencies 490-920 mc

Hrs. per wk. of operation—12 hours a week minimum

Equipment—Continental Corporation

Power, aural and visual—250 watts.

Misc.: Company primarily interested in development of television on upper channels. However wants to experiment on lower bands to compare transmissions. Also propose to manufacture receivers. Program of research will be headed by R. L. Campbell.

Engineers supervising research: head, Richard L. Campbell — in tele development since 1920; director television transmitter development at Allen DuMont Laboratories 1938-1942.

Richard Mosher; Robert Wooley; Allen MacNee; Henry Wallman. Station wants to use pre-war standards but at the same time experiment in ultra-highs.

### Lancaster County, Pa.

Name—Conestoga Television Association

Address—RFD #5, Lancaster, Pa.

Officers—President, Philip A. Richards; Vice-President, Ray Harnish; Secretary, Richard Voight; Treasurer, Hannah Moody.

Ownership—Non-corporate club

#### Estimated Costs

Vis. transmitter	\$ 750
Antenna System	750

#### Estimated Total Costs

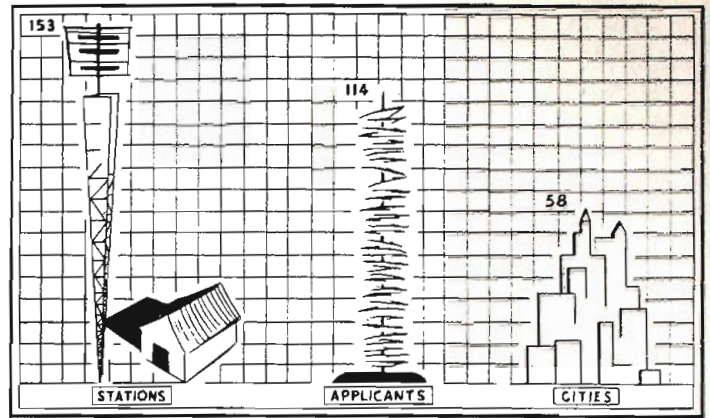
Experimentation \$2500

Operation Costs per month — first year \$200

Financing—contribution of association members

Kilocycles—590-610 mc

Hrs. per wk. of operation—1 experimental operation only



Transmitter location—Salisbury Township, Lancaster County

Power, aural & visual—25 w; 100 w.

Engineering Consultant—Formed as club, majority of whom are engineers.

Misc.: Chief Engineer, Eugene Hoffman. Purpose of application for relay: to relay video programs picked up from WPTZ and W3XE. "Relay only economical way to extend tele service to Lancaster. Company principals are a group of engineers planning to manufacture electronic tubes for receivers.

"Television is enjoyed in Philadelphia 65 miles away. We want to relay those programs to Lancaster, Pa." Have agreement with Philco.

## HEARING SCHEDULE

The FCC has set a tentative schedule for hearings on final allocations for television in the following eleven cities. However withdrawals may change the picture before the hearings take place.

City	Date	Date
Detroit	March 25—Detroit	5 channels— 4 applicants
Harrisburg	April 15—Harrisburg	1 channel— 2 applicants
Pittsburgh	April 15—Pittsburgh	4 channels— 5 applicants
Lancaster	April 18—Lancaster	1 community channel—2 applicants
Baltimore	May 6—Washington, D. C.	3 channels— 4 applicants
Cleveland	May 13—Cleveland	5 channels— 6 applicants
New York	May 20—Los Angeles	7 channels— 13 applicants
Los Angeles	June 3—Washington, D. C.	7 channels— 12 applicants
New York	June 17—Washington, D. C.	4 channels— 10 applicants
Philadelphia	June 17—Providence	1 channel— 1 applicant
San Francisco	July 15—San Francisco	6 channels— 7 applicants

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