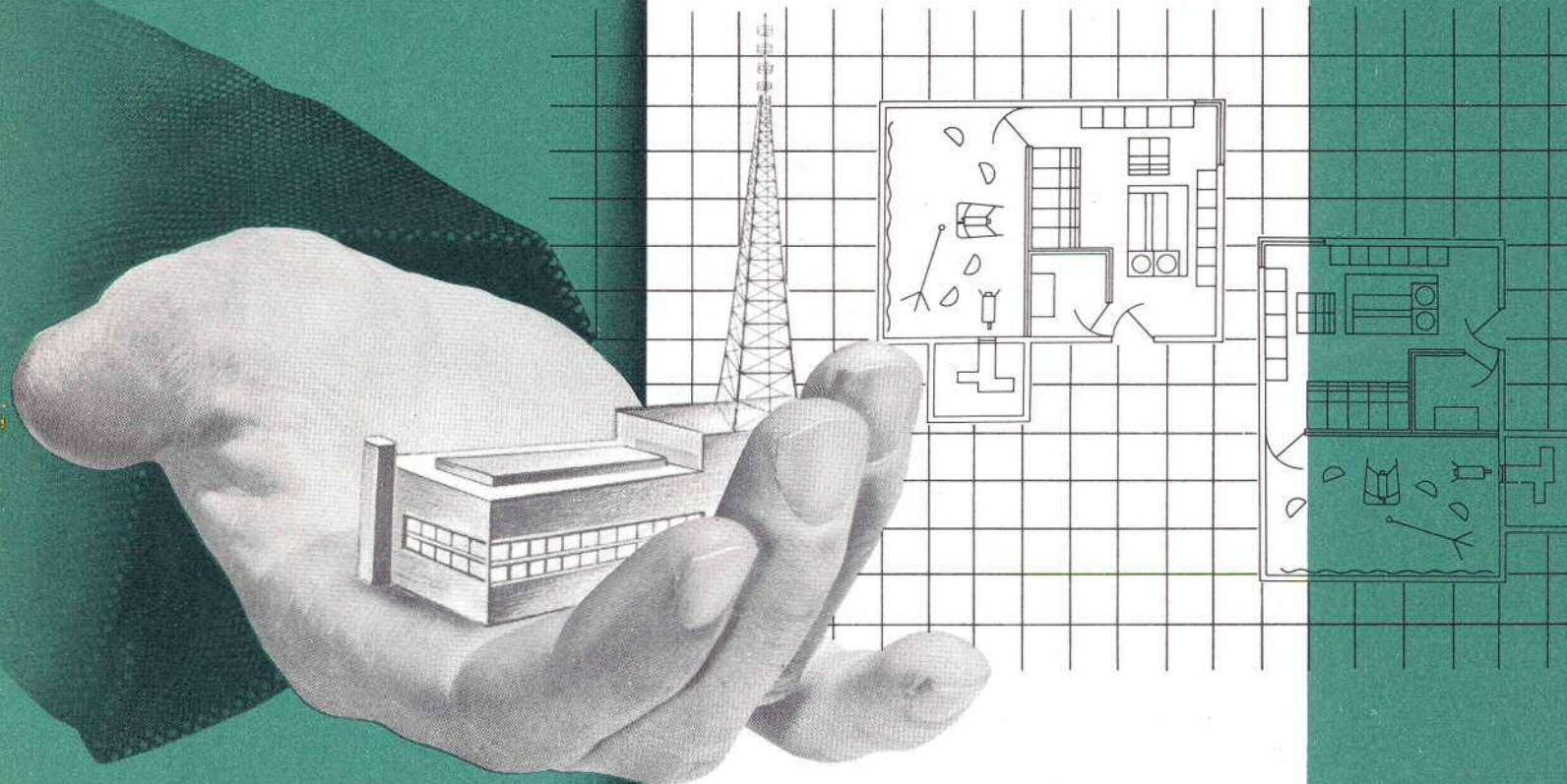


Station

Planning

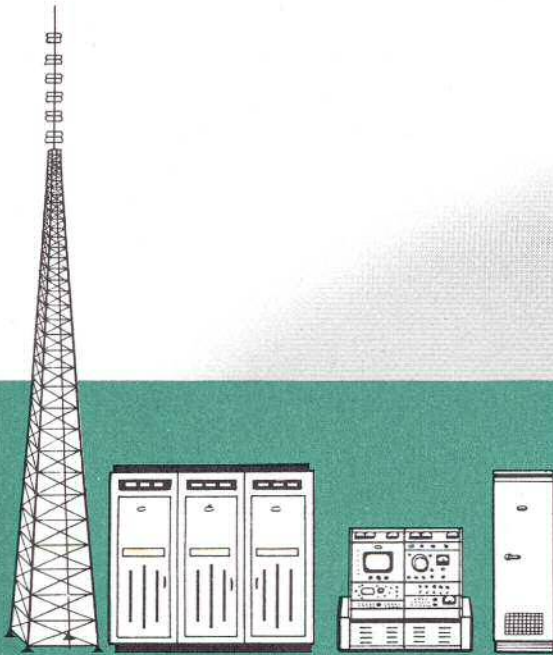


A complete, well integrated television station is easily planned from equipment arranged into a few functional groups which fit together as illustrated and described herein. The more complex of the groups are described in detail, and representative equipment layouts are given for stations of various sizes.

The most economical arrangement of the facilities required both as to equipment cost and operating manpower can be chosen to assure flexibility, providing for normal future growth without obsolescence of original equipment.

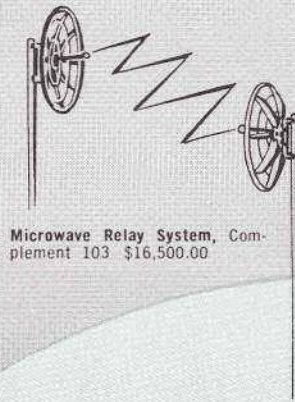
DU MONT

First with the Finest in Television

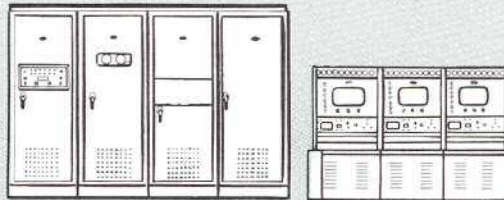


500 Watt Transmitter/Antenna, Complement 101—\$70,000.00
 5 KW Transmitter/Antenna, Complement 102—\$100,000.00
 100/200 KW ERP—\$175,000.00

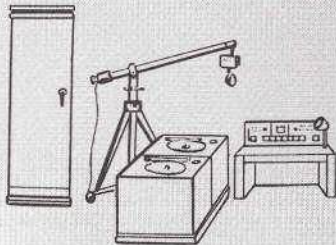
Each complement includes transmitter, transmitter control, frequency monitors, modulation and video monitors, spare tubes, wattmeter, cabinets, audio, antenna, and transmission line.



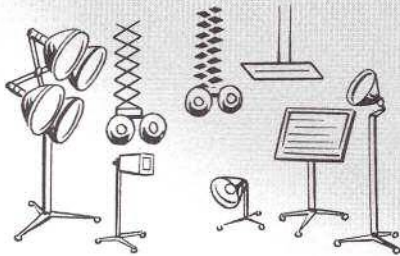
Microwave Relay System, Complement 103 \$16,500.00



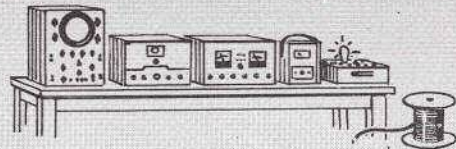
Central Control Complement 105, including sync equipment, test pattern and slide video equipment, video switching and mixing equipment—\$26,500.00



Audio Complement 114 for typical two camera studio—\$5,000.00

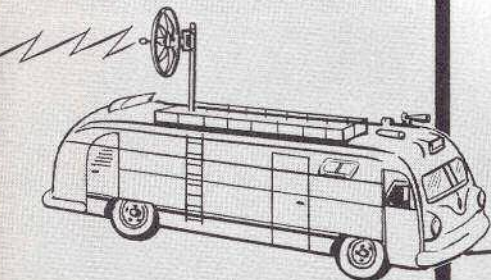


Lighting Complement 116 for basic lighting 40 x 60 studio—\$3,500.00

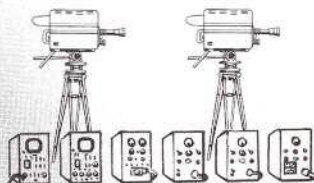


Test Equipment, Complement 115—\$3,000.00

All prices indicated are approximate and are based on typical complements outlined in detail in TELEVISION EQUIPMENT COMPLEMENTS bulletin with complete price breakdown. Details of each item of equipment are included in the Television Broadcast Equipment catalog.

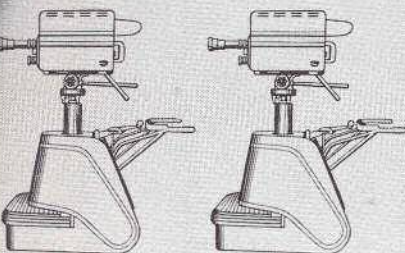
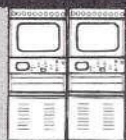


Mobile Field Unit, Complement 117, including portable relay, monitoring and distribution equipment for power, audio and video—\$36,000.00

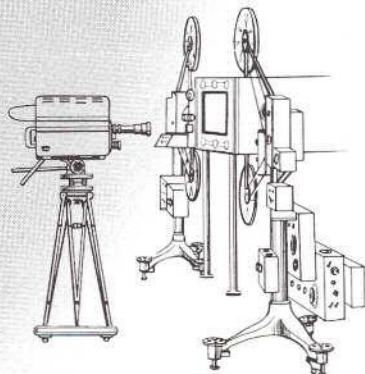


Dual Field Camera Chain, complete with sync generator, video mixer and accessories, Complement 111—\$35,000.00

Triple Field Camera Chain and accessories, Complement 112—\$48,000.00



Studio Camera with Mobil-Mount Dolly, cables, lenses, and accessories, Complement 108—\$15,500.00



Film/Studio Camera with 2 16mm Projectors, multiplexer, and accessories, Complement 109—\$20,500.00

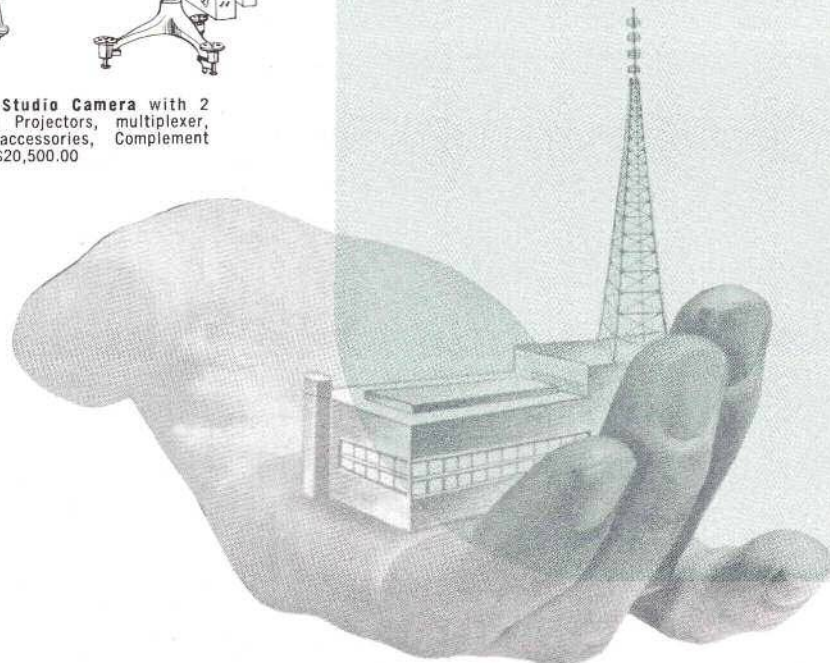
Illustrated are the groups which make up a television station:

The appropriate transmitter, antenna and associated equipment must be carefully selected to provide the coverage required to best competitively serve the market area. A complete line of transmitters to pair with various types of antennas is available to "tailor make" installations to meet exact requirements.

Where the transmitter and studio are to be in different locations a microwave link must be installed or telephone company service must be planned.

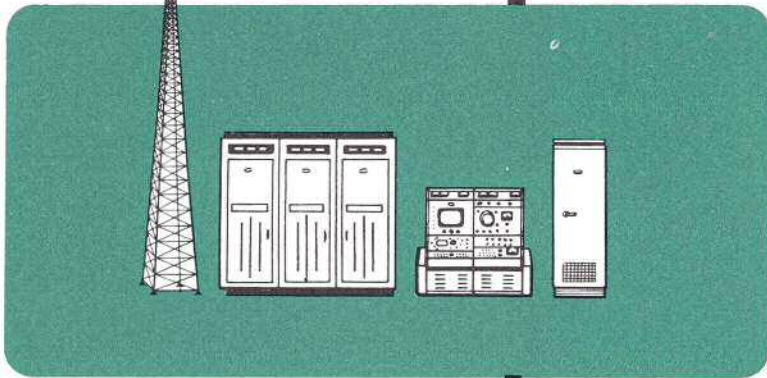
The central control equipment is the foundation for any station since it controls and routs the video signal. To this complement all other studio equipment is added in quantities depending on the size of the station being planned. For instance, any required number of cameras may be included depending on the size and number of studios.

The Dual and Triple Field Cameras include typical accessories so that they are fully operating cameras with switching equipment which includes automatic lapping, fading, etc.



VHF

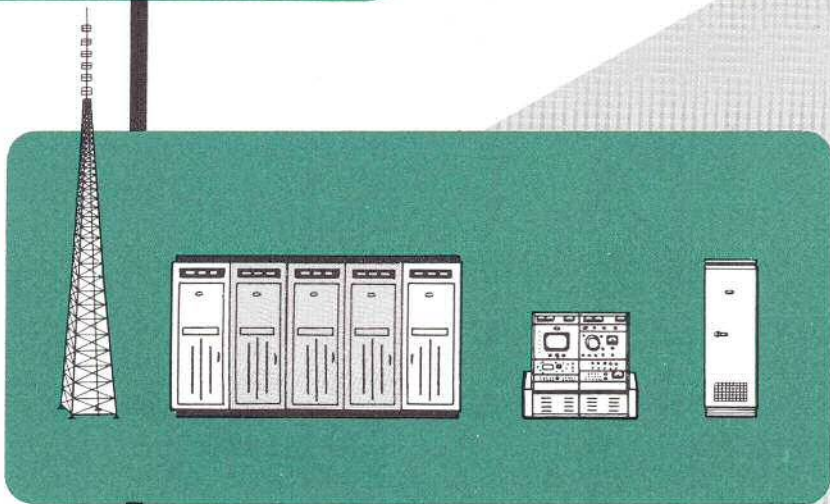
TRANSMITTER



500 WATT ACORN TRANSMITTER

(Complement 101) The Du Mont Acorn Transmitter provides ideal coverage for cities of 250,000 population or less. Initial operation with this transmitter allows future expansion to higher power and greater coverage without sacrifice of original investment. This is accomplished simply by adding higher power stages to the 3 basic cabinets of the 5000/6000 Acorn Series.

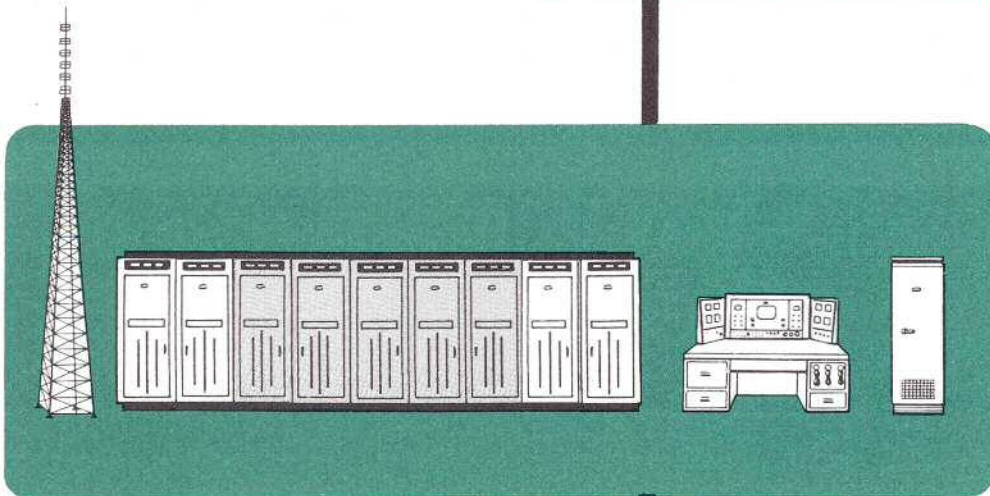
For minimum-cost initial operation a simple rack-mounted grouping of transmitter control and monitoring equipment is available.



5 KW OAK TRANSMITTER

(Complement 102) The Du Mont 5 KW Oak Series 7000/8000 Transmitter will afford coverage for major cities and metropolitan areas up to 1,000,000 population. Again the original investment is protected, since the basic 5 KW Transmitter is retained and used to drive higher power stages for expansion to maximum allowed power and coverage.

The transmitter control and monitoring equipment are available mounted in the Du Mont Universal Console sections to provide for greater flexibility of operation and a reduction of the number of required operating personnel.



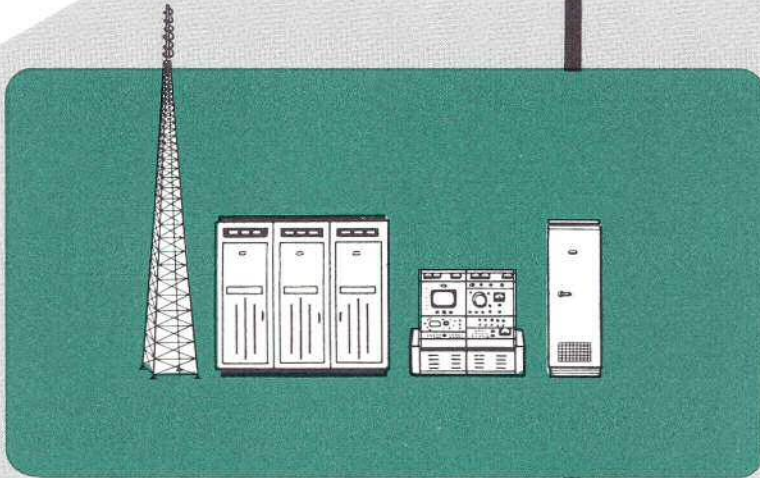
100/200 KW ERP

Maximum allowed power output is provided by the 20 KW Series 9000/10000 and the 40 KW 11000/12000 transmitters. Combined with the proper choice of antenna, these transmitters assure 100 KW ERP on channel 2-6 and 200 KW ERP on channel 7-13 with the maximum in operating efficiency.

Transmitter control and monitoring equipment is available in a deluxe console which includes complete remote metering and control, and provides typewriter drawer, telephone space, etc.

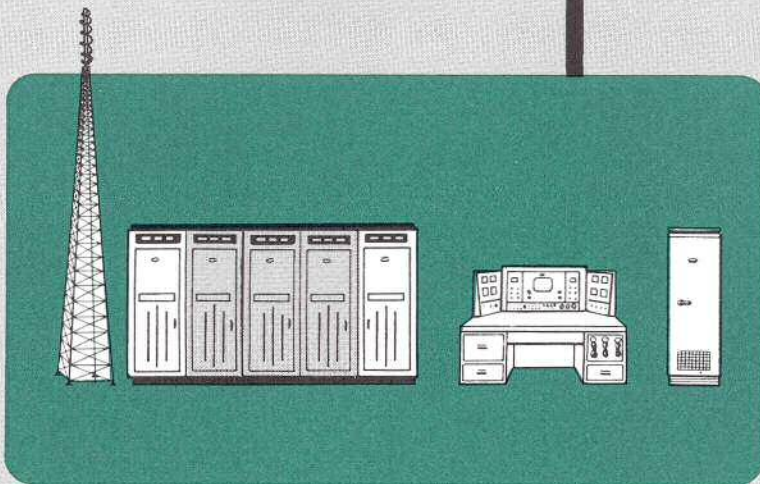
DUMONT

UHF



UHF ACORN TRANSMITTER

Patterned after the building block VHF transmitter design, the Du Mont Series 13000 UHF Acorn Transmitter provides a low power output for small cities. It also acts as the basic driver unit for the addition of a higher power amplifier for maximum power on the UHF band.

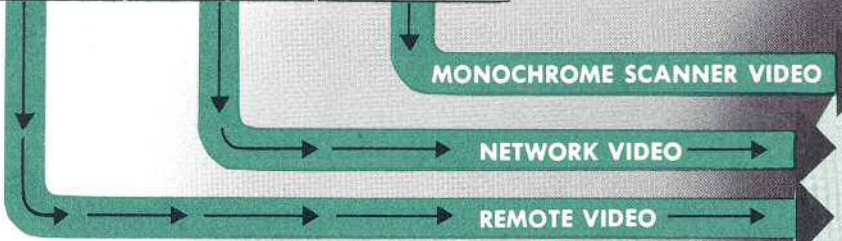
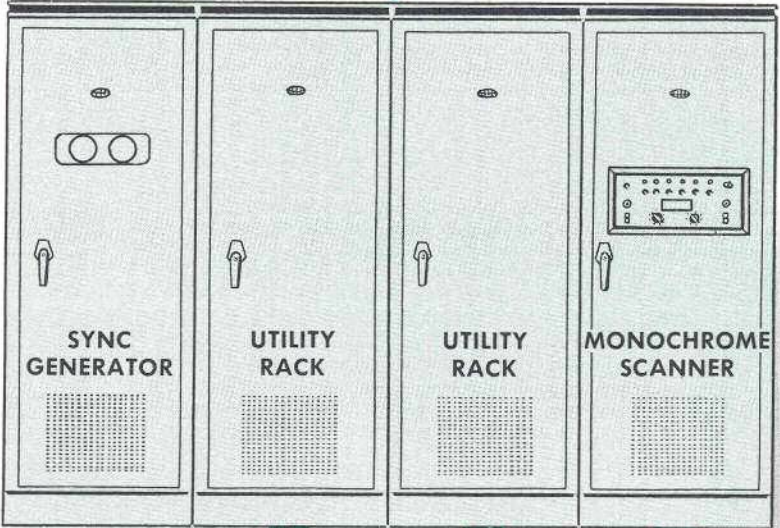


UHF OAK TRANSMITTER

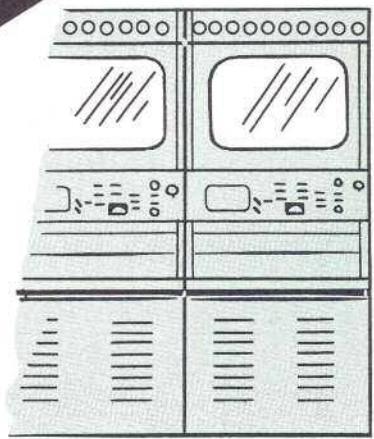
The Du Mont Series 14000 UHF Oak Transmitter is rated at 12 KW visual and 6 KW aural. This output in connection with a high gain UHF antenna (power gain 20) will provide the maximum allowed power on the UHF band.

... for effective low-cost coverage

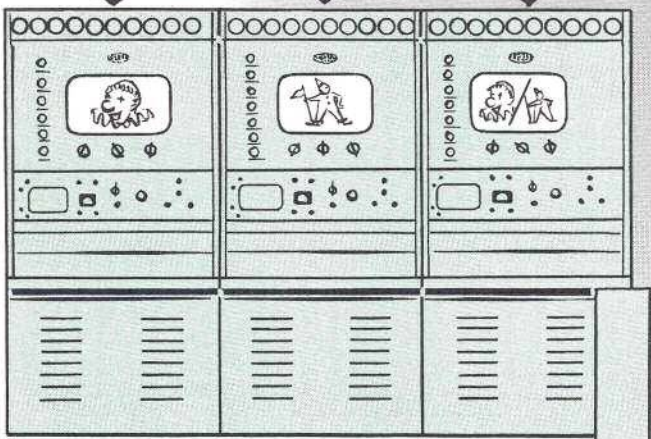
**NETWORK
&
REMOTE**



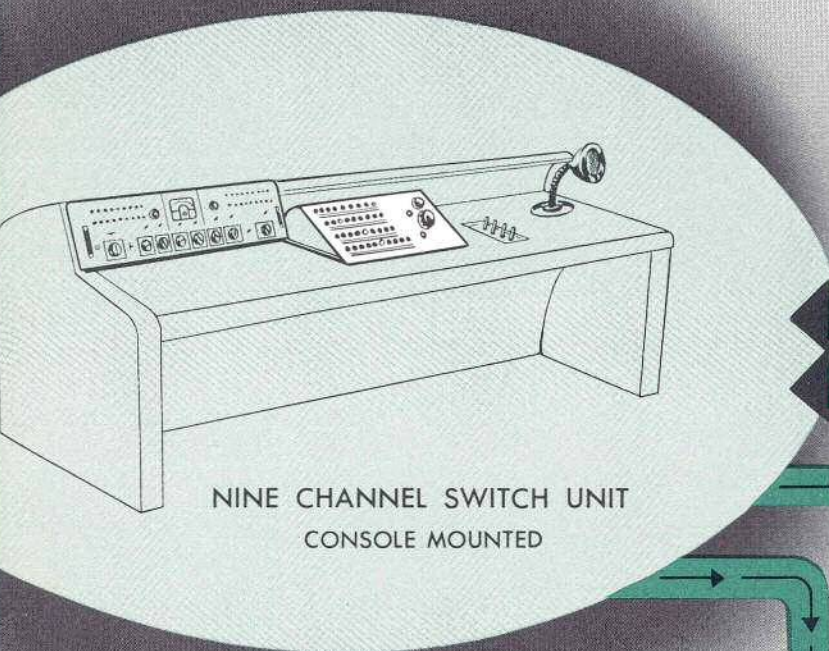
*central
control
equipment*



**CAMERA CONTROL
CONSOLES**



**PREVIEW 1
&
TERMINAL
FACILITIES
CONTROL** **PREVIEW 2
&
MONOCHROME
SCANNER
CONTROL** **LINE MONITOR**



NINE CHANNEL SWITCH UNIT
CONSOLE MOUNTED

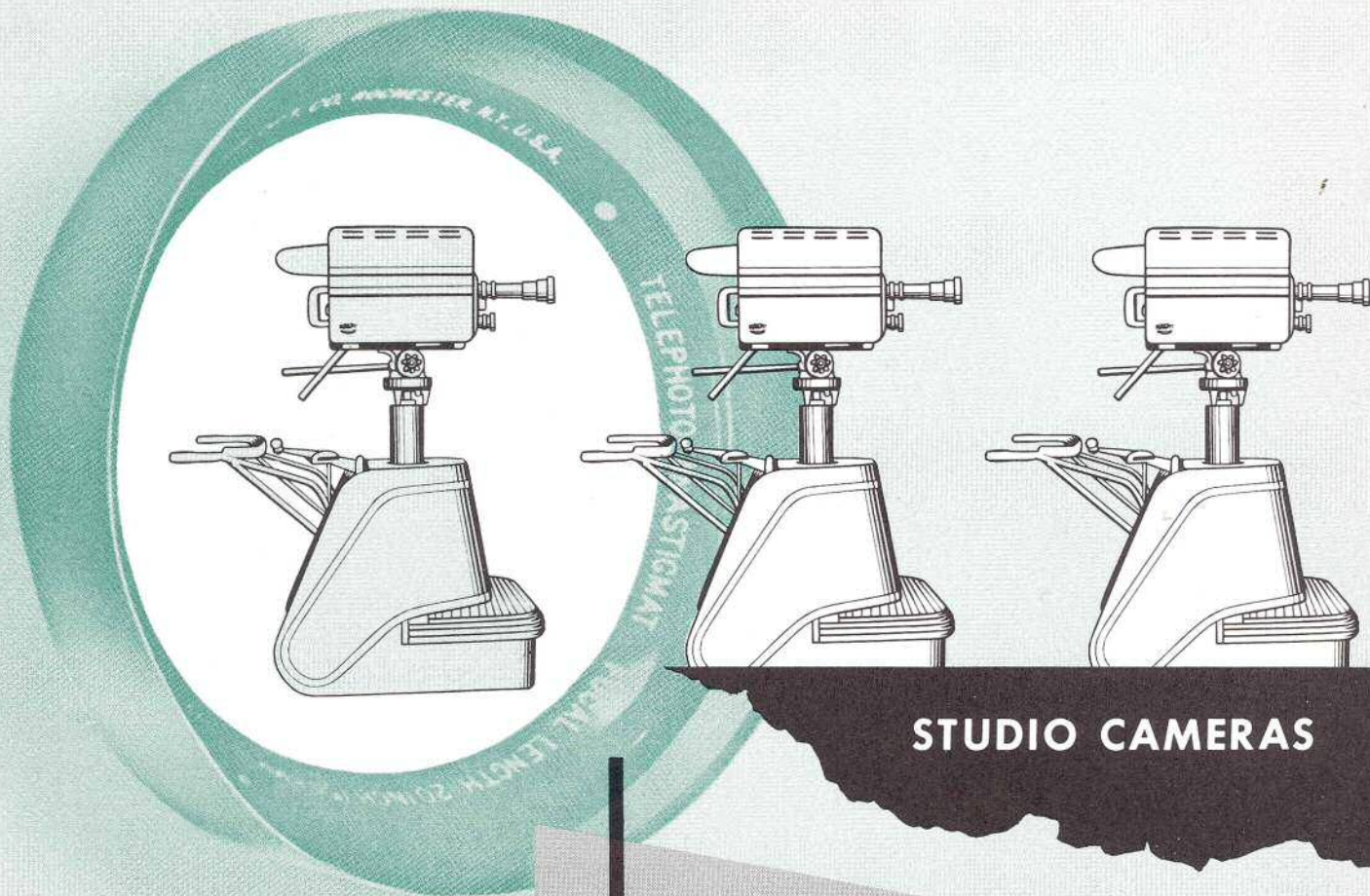
Central Control (Complement 105) provides complete facilities for the control of a large local studio, network feeds, remote feeds, and film cameras. The group includes complete sync equipment; a Monochrome Scanner for test pattern and slides; Terminal Facilities for setting up and monitoring incoming network and remote signals; plus nine channel video switching and mixing equipment complete with line and preview monitors; patching facilities; consoles; and rack cabinets.

This basic group forms the operating heart of the station to which is added the equipment providing the picture sources. Studio cameras, film cameras, remote pickup and network feeds tie directly into the central control. Additional cameras or other picture sources may be added without changing the central control equipment.



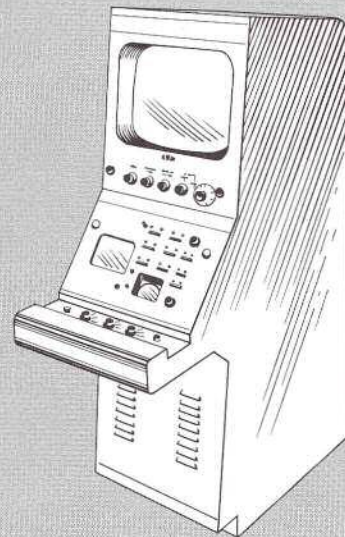
STUDIO PICKUP

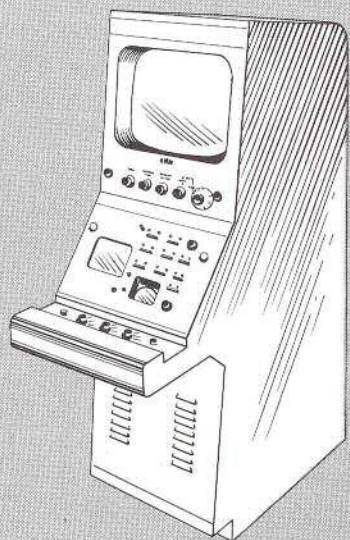
FILM PICKUP



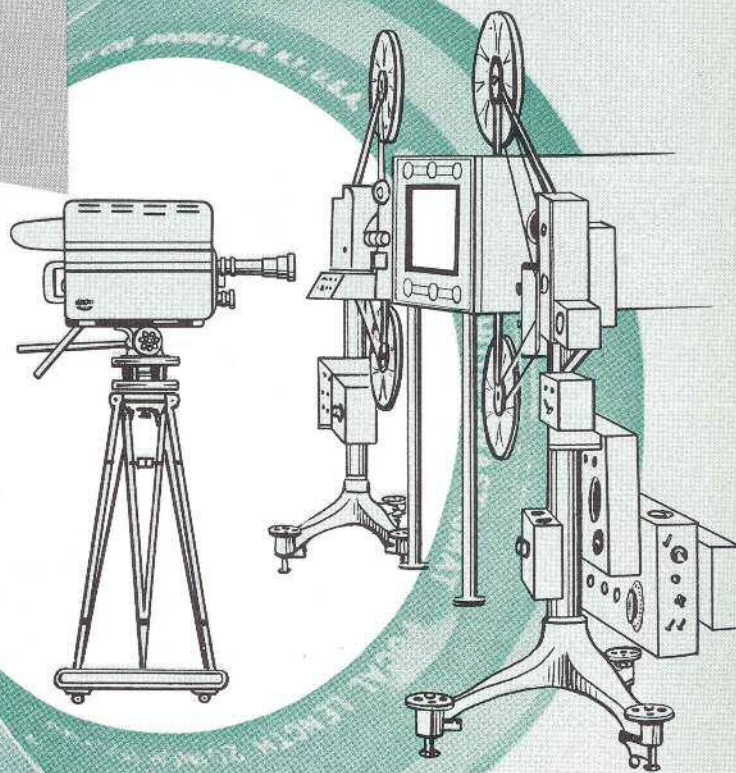
STUDIO CAMERAS

The Du Mont Image Orthicon Camera is mounted on a dolly which provides for its complete maneuverability by one cameraman. Its control and monitoring equipment is mounted in a Universal Console section with a large 17" Monitor and joins the consoles in the central control group. This type of mounting provides an ideal arrangement for both the technical operating personnel as well as the program director. These same camera units may be quickly and easily removed from the console and slipped into their portable cases for field use. Any number of studio cameras desired may be added with complete flexibility.





The Du Mont Image Orthicon Camera is utilized to provide a film pickup of high quality and definition. The use of an Image Orthicon Camera for film pickup effects a great economy in several ways. First, it allows for complete standardization of film, studio and field pickup equipment with the attendant savings in maintenance and spare parts. Second, the same camera used for film pickup may be used at other times in the studio or in the field. This triple purpose use of the Image Orthicon Cameras provides for greater use of costly equipment with minimum investment. In the film camera group two 16mm projectors and a multiplexer are included along with the camera. The control and monitoring unit is housed in a Universal Console section which joins the consoles in the Central Control group.



FILM CAMERAS

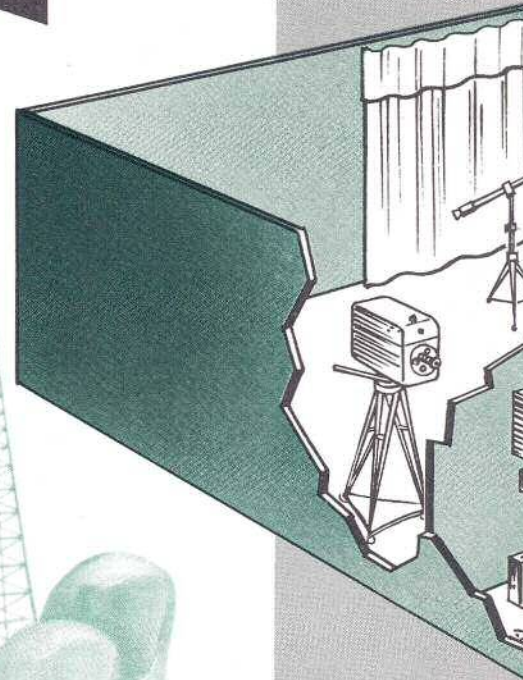


minimum station

For stations starting with an absolute minimum operating complement of equipment, whether for economic or other reasons, this layout has been included to indicate the minimum practical facility for television broadcasting. The antenna, transmitter and transmitter monitoring equipment should be chosen to provide adequate power required to cover the community being served. To that should be added this minimum studio complement which our experience has shown should include a Sync Generator; Monochrome Scanner for still slides and test pattern; a Single Image Orthicon Camera Chain to be used for live pickup such as interviews, news broadcast and live commercials, as well as for film pickup; two 16mm projectors; a stabilizing amplifier for local adjustment of network feed; and minimum audio facilities.

A small compact building should be planned for housing both the transmitter and pickup facilities in a manner convenient for a minimum operating staff of three men: one transmitter and video operator, one film operator, one audio operator.

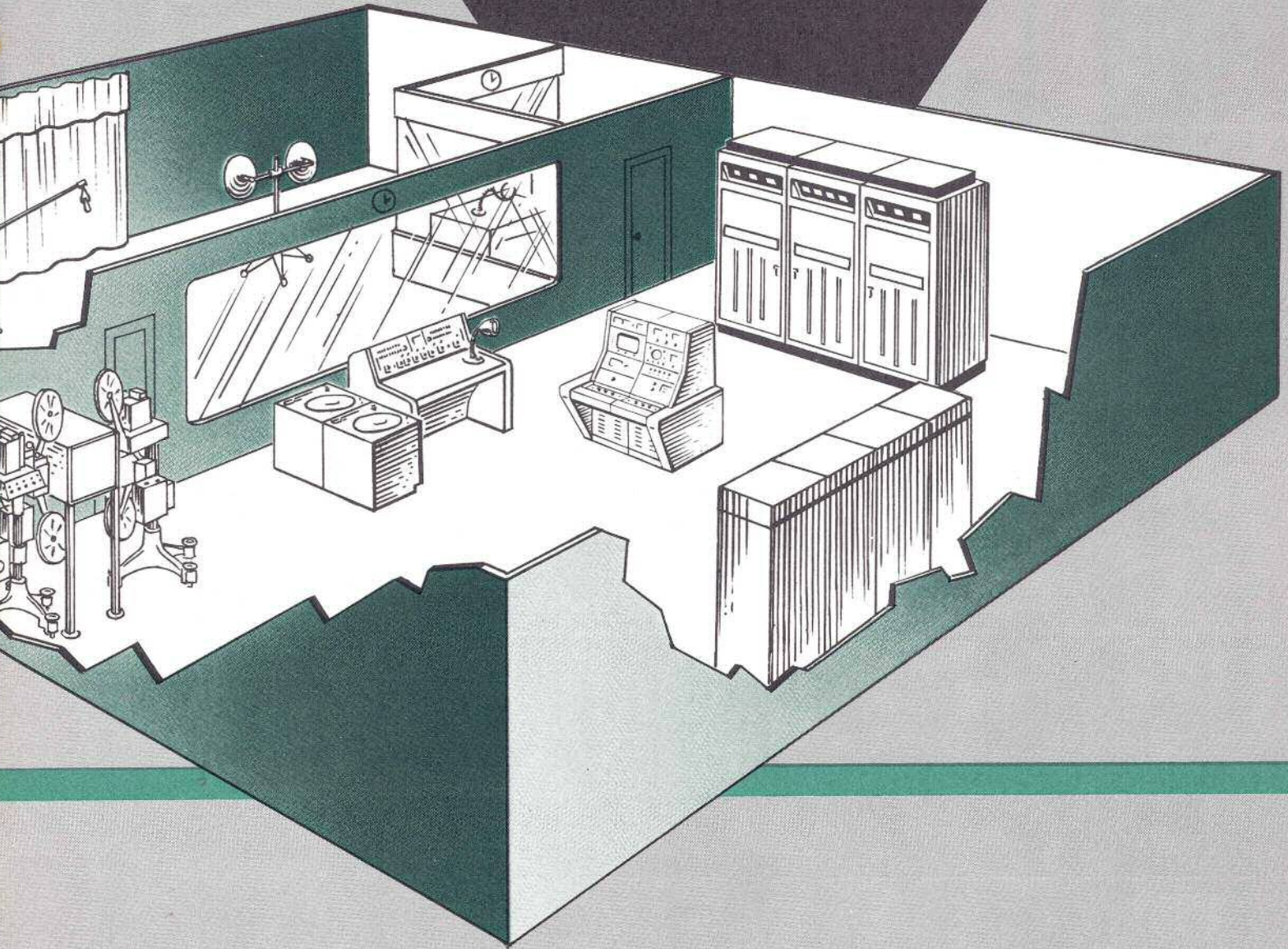
When the station is ready for expansion the Central Control equipment and equipment outlined on the previous pages can be added without any of the existing equipment becoming obsolete, a prime consideration in low-cost telecasting.



STATION LAYOUTS

This is how the groups may be arranged. Complete stations of three different sizes are depicted—a minimum station, an intermediate size station, and a larger two-studio station.

start small — grow bigger

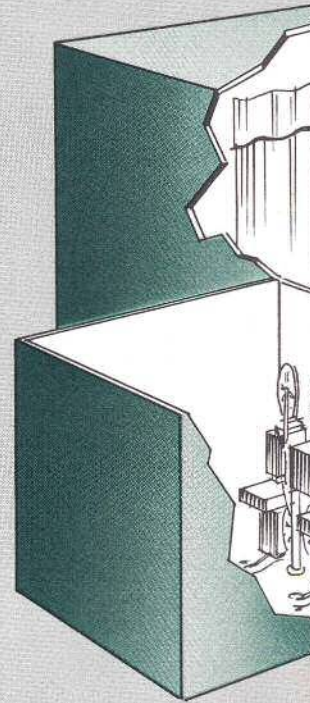


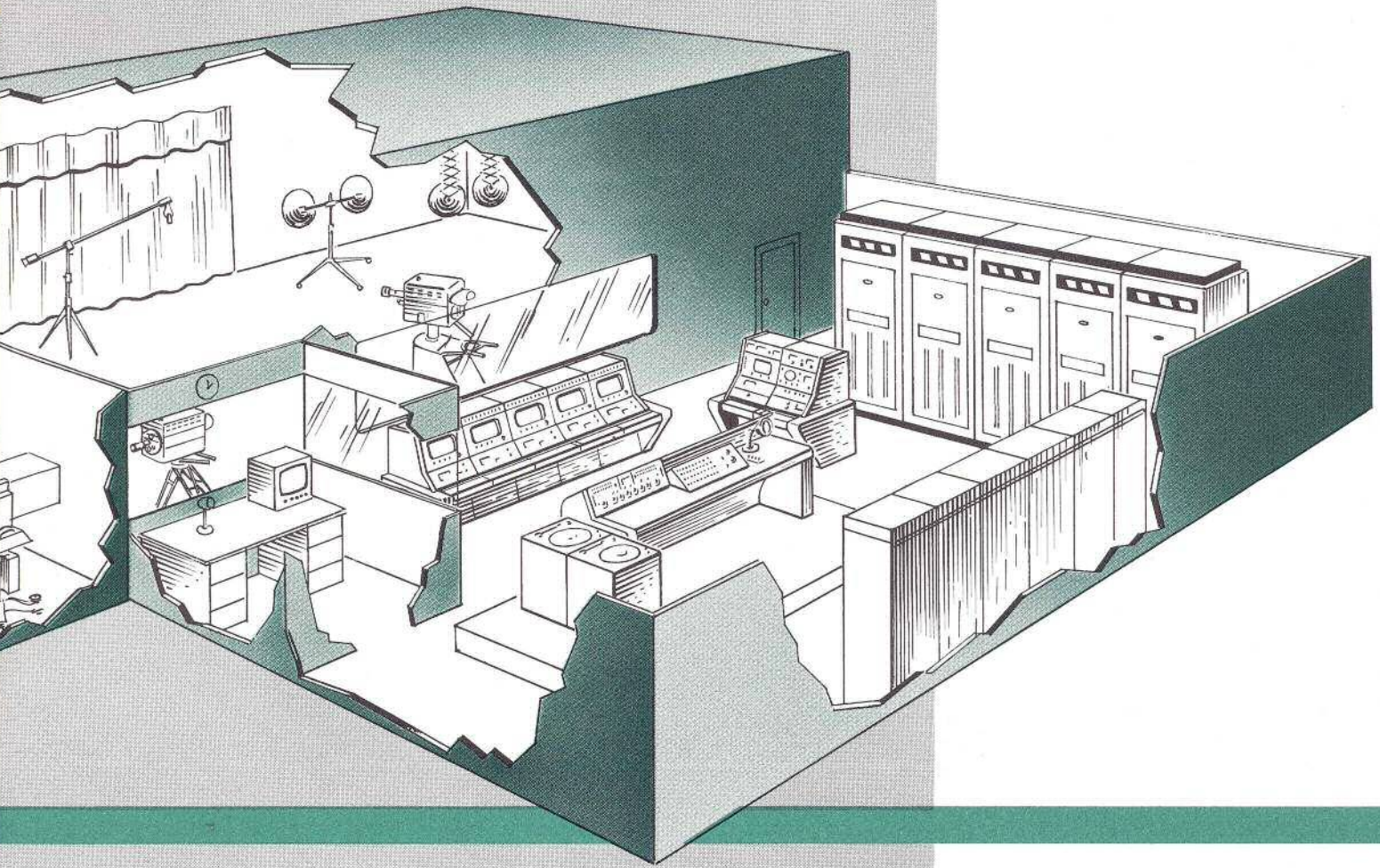
TOTAL EQUIPMENT COST	
TRANSMITTER/ANTENNA, COMPLEMENT 101	\$ 70,000.00
MINIMUM STUDIO, COMPLEMENT 104	35,500.00
TOTAL	\$105,500.00

intermediate station

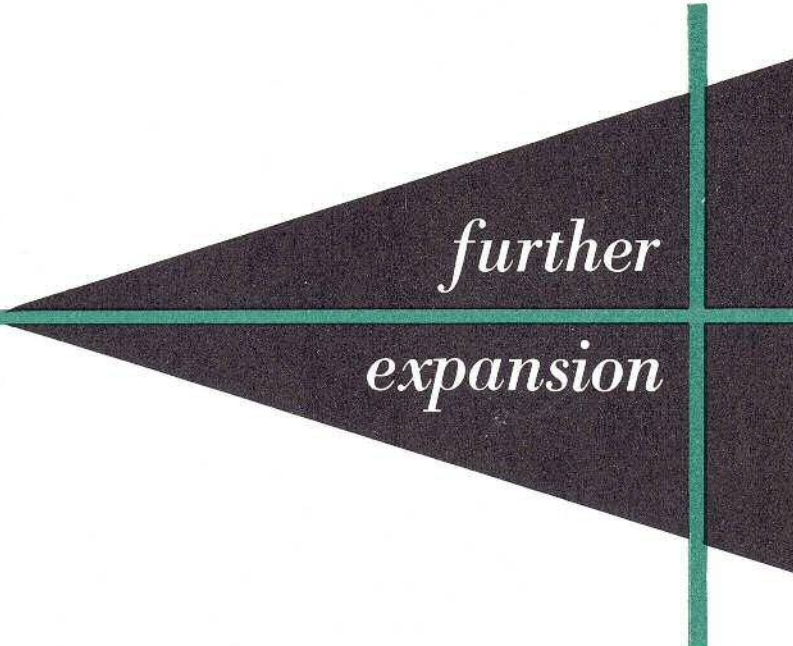
This 5 KW station has central control equipment for handling network, remote, and live pickup facilities. The studio is provided with two cameras, one of which doubles as a film pickup camera. This arrangement is excellent for an operation primarily network and film with reasonably limited live programs.

The Transmitter Control Console faces the transmitter on the right and is adjacent to the studio and film camera control consoles (which face the studio). With this arrangement the duties of operating personnel can easily be combined for network hours, test patterns, etc. The program console, located behind and above the camera consoles, commands a view of the camera monitors, the studio, and the announcer's booth. Additional cameras (Complement 108), may be added to provide additional facilities with no other changes.





TOTAL EQUIPMENT COST	
TRANSMITTER/ANTENNA, COMPLEMENT 102.....	\$100,000.00
CENTRAL CONTROL, COMPLEMENT 105.....	26,500.00
STUDIO CAMERAS, COMPLEMENT 108.....	15,500.00
AUDIO COMPLEMENT 114.....	5,000.00
TEST EQUIPMENT, COMPLEMENT 115.....	3,000.00
LIGHTING COMPLEMENT 116.....	3,000.00
FILM/STUDIO CAMERA, COMPLEMENT 109.....	20,500.00
TOTAL	<u>\$173,500.00</u>

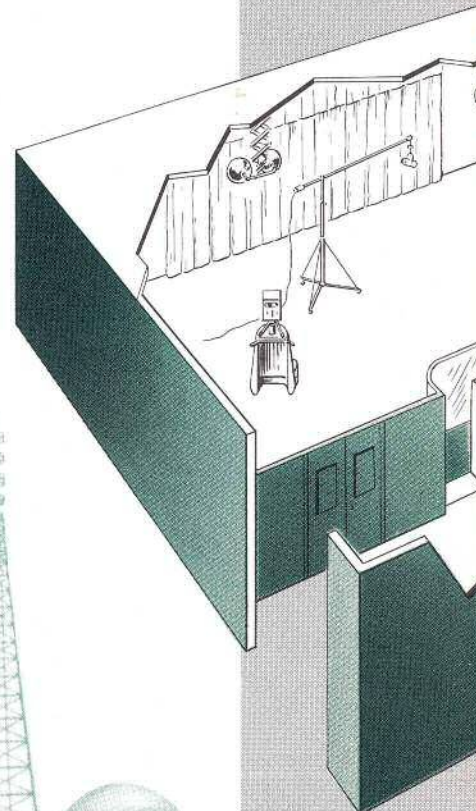


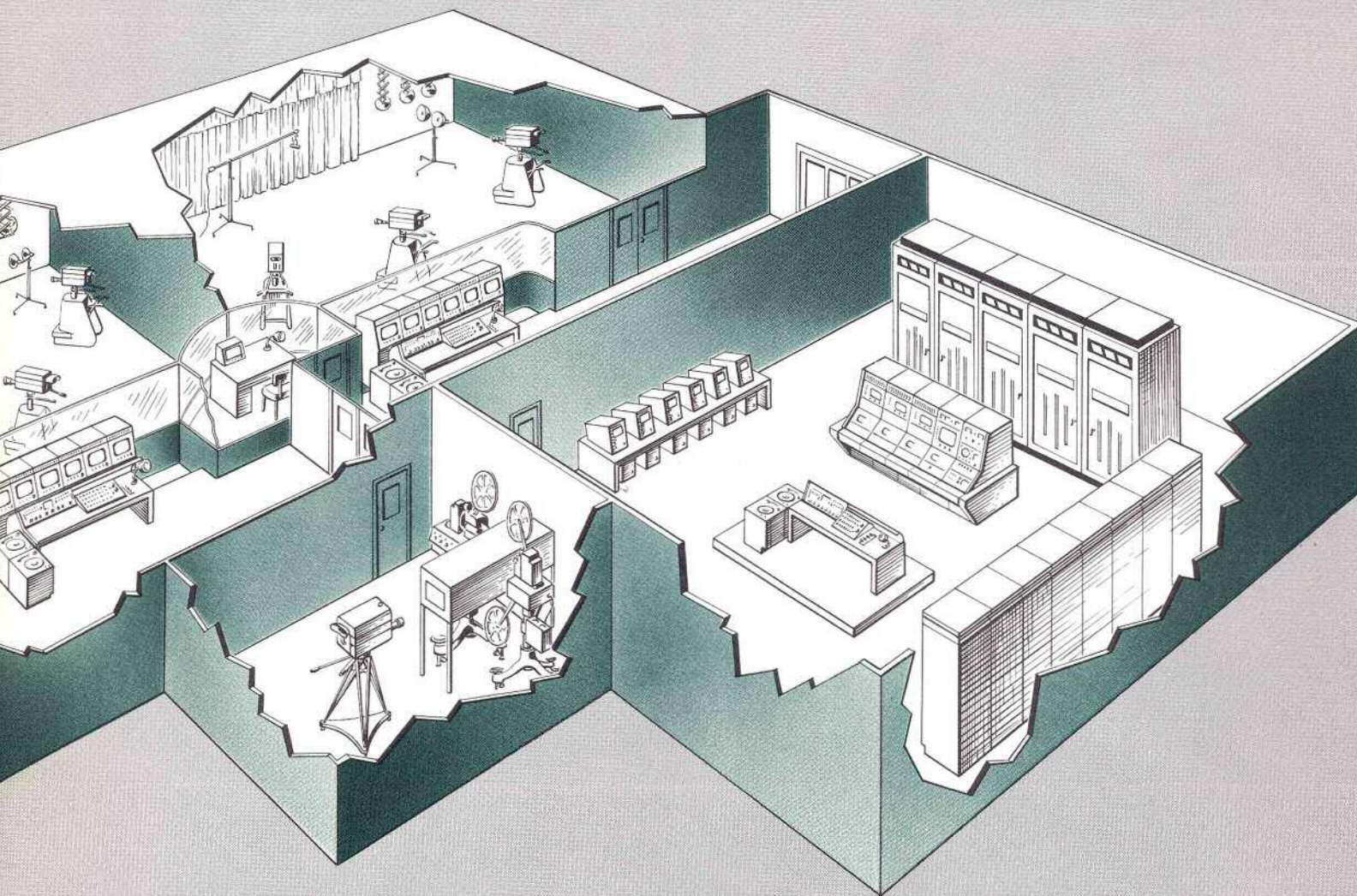
*further
expansion*

This larger two-studio station is shown with the transmitter equipment and central control combined in one large master control room. In this control room is included a Central Control Complement plus all the studio camera control equipment for both studios and the film camera. This system of having studio camera control equipment located in master control instead of in the studio control room has many distinct features. It relieves congestion in the studio control room so that production personnel can operate without the annoyance of technical personnel working on camera setup. It allows easy centralized maintenance of all camera control equipment. It allows any camera control unit to be patched to any camera to ease troubleshooting. It allows any number of cameras to be patched into one studio.

Transmitter control consoles are combined with the consoles in the Central Control group in order to conserve operating manpower. The master control switch unit is located behind these consoles and serves to control the output of the studios as well as network, remote programs, and film.

Each studio control room contains Studio Control Complement 107 which includes switching equipment, preview monitors and a line monitor. The switching equipment controls the output of each studio camera as well as network, remote programs, and the film camera. Monitors for the three cameras normally operating in that studio are also provided.





TOTAL EQUIPMENT COST

TRANSMITTER/ANTENNA, COMPLEMENT 102.....	\$100,000.00
CENTRAL CONTROL, COMPLEMENT 105.....	26,500.00
CENTRAL CONTROL, COMPLEMENT 106.....	2,000.00
STUDIO CAMERA, COMPLEMENT 108 (6).....	93,000.00
AUDIO COMPLEMENT 114 (3).....	15,000.00
LIGHTING COMPLEMENT 116 (2).....	7,000.00
STUDIO CONTROL, COMPLEMENT 107 (2).....	21,000.00
FILM/STUDIO CAMERA, COMPLEMENT 109.....	20,500.00
TEST EQUIPMENT, COMPLEMENT 115.....	<u>3,000.00</u>
TOTAL	\$288,000.00

DU MONT

TELEVISION TRANSMITTER DIVISION

ALLEN B. DU MONT LABORATORIES, INC.

Clifton, New Jersey

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The Du Mont Television Transmitter Division maintains a capable staff of experienced sales engineers who are glad to discuss applications of any of the equipment listed in this booklet or any of the other items of the complete Du Mont line of Television Broadcast Equipment to fit individual needs and requirements.