

## SMPTE Test Films

The Society has several test films available for testing sound reproduction and projection equipment as listed below.

Television—Alignment, Resolution, TV System Evaluation

35mm—CinemaScope—Projection Evaluation; image and 4-track magnetic sound tests

35mm—Projector Screen Image Evaluation  
35mm—Sound Reproduction Tests: Optical

35mm—Sound Reproduction Tests: 3-track and single-track magnetic

70mm—Test Film, Projector Evaluation and Alignment: Image

16mm—Sound Reproduction Tests: Magnetic

16mm—Sound Reproduction Test: Optical  
16mm—Sound Reproduction and Image

Tests for Projector Evaluation: Optical  
16mm—Projector Screen Image Evaluation

8mm—Projector Screen Image Evaluation

A catalog containing details and prices of all SMPTE test films can be obtained from Society headquarters.

The new SMPTE subjective color television test film and slides are now available. Details were published in the March, 1966 *Journal*, pp. 218-220.

Most SMPTE test films are prepared in accordance with ASA/SMPTE Standards. The films are used for testing picture steadiness, traveling ghosts, framing, alignment, and focusing. Sound test films are used to check sound system frequency response, magnetic head or optical train alignment, and sound optics focusing.

## Development of Instructional Television in the Public Schools of Rochester, N.Y.

By THOMAS L. RUSSELL

*In 1962, the city of Rochester began experimenting with instructional television (ITV) with a two-camera operation in one building. Now the city has a complete live/videotape television production center and one of the first 2500-MHz ITV systems in the country. In Rochester and other communities, television and education have been combined, making the development of new television equipment necessary.*

AT THE OUTSET, the distinction is to be made between Educational Television (ETV) and Instructional Television (ITV). Educational Television is an all encompassing term covering all informative use of the medium and can

include the part of television referred to as instructional. Usually ETV would denote open-circuit, informative — not necessarily teaching — programming. ITV has a narrower definition: the use of the medium to teach curriculum oriented material. By this definition a network special on Viet Nam would be considered ETV while a closed-circuit presentation on the correct use of a soldering iron would be best termed ITV. Of course, there are many instances when the distinction would be less obvious.

The City of Rochester, N.Y. is 7 miles wide and 10 miles long. There are 45,000 students in its public school system. These students attend 52 schools (9 high and 43 grade). The newest of the high schools, East High School, was chosen as the home for an experimental ITV television project begun in 1962.

### *Project Birth*

New York State education officials were then developing an aid program to

Presented on May 5, 1966, at the Society's Technical Conference in Washington, D.C., by Thomas L. Russell, Producer/Director, Instructional Television, City School District, 1801 Main St., East, Rochester, N.Y. 14609; and Television Consultant, Graflex, Inc., 3750 Monroe Ave., Rochester, N.Y. 14603. (Abridged from a paper received on April 11, 1966.)

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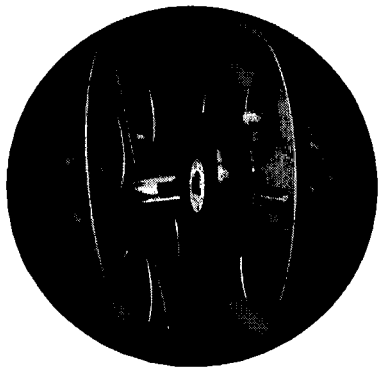
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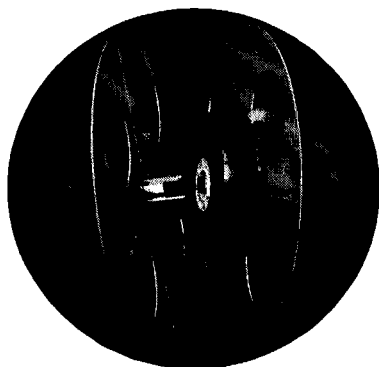


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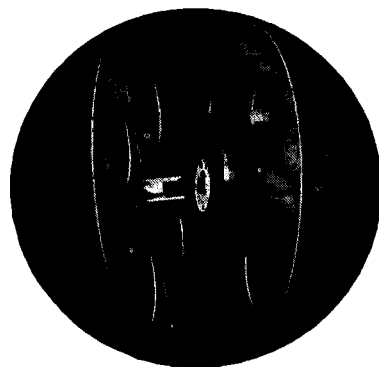


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First, there's the portable model TVC-2010 Videocorder, with a built-in 8" (measured

diagonally) monitor. And the similar TCV-2020, which has a fancy walnut case and a timer which will turn the unit on and off without your being there. Now there are also two Videocorder decks, for use with separate monitors (large screen or small, any number) or receivers. The CV-2000 in portable case, \$730, and the CV-2000D in a compact cabinet, \$695.

Then come the Sony monitors. The 8" (measured diagonally) CVM-51UWP, \$195, and the 22" (measured diagonally) CVM-2300U, \$295. And the solid state TV camera, with tripod, microphone and cables, which constitutes the camera ensemble. Plus camera switchers and lenses enough to achieve professional results when taping 'live' action.

Give you any ideas? Just to get the wheels turning, we might mention that a good many Videocorders are already in use in the TV broadcast industry for non-broadcast jobs like previewing ideas for commercials and programs. Keeping an eye on programs and commercials without staying up late. Exchanging tapes of programs or commercial ideas with other stations.

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encourage the development of local television production. Rochester was fortunate to be one of the first school districts in the state to be awarded a State contract to begin closed-circuit television.

At first, the equipment was minimal: two vidicon studio camera chains, simple audio equipment and a few lights on stands. A few programs were begun in areas such as typewriting and science. The programs were distributed within the building and therefore were only available to East High School students.

### *Project Growth*

Gradually, there has been added such equipment as helical-scan video-tape recorders, film chains, and additional lighting instruments. At this point it was felt we had almost as complete a production center as we would ever have; but our potential viewing audience was still the same as ever: the students of one high school, less than 7% of the city public school population. The question was how to extend programs beyond East High.

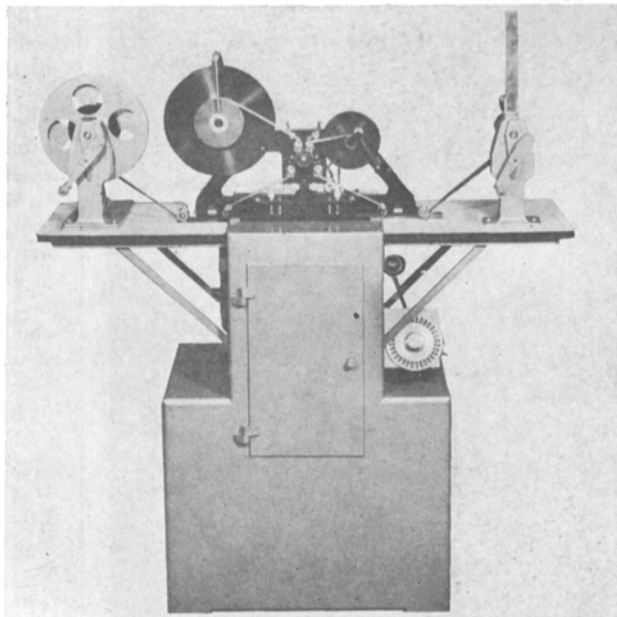
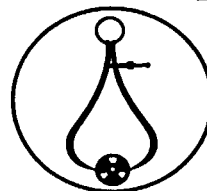
We knew of three possible ways to achieve viewing by all our students: open-circuit broadcast, distribution via cable, and the new 2500-MHz system.

Since instructional programming was our goal and multiple channels were required, open-circuit broadcast was eliminated almost before it was considered. That left only cable and the yet unproven 2500 MHz which the FCC had just made available as ITFS-Instructional Television Fixed Service. Initially, since cable systems had been around so long, this method was considered most desirable. Especially since many channels (we were told 12) could be sent on one cable and the same cable could be used to return 6 signals. We soon discovered that there was no conduit space available to use to interconnect our schools. The only alternative was to lease cable from the local independent telephone company. This organization's apparent lack of experience with an operation similar to ours, together with their high bid prompted the consultant to the Rochester City Schools to recommend the cable method no longer be considered. This left but one choice.

At the time of our investigation the first 2500-MHz system at Plainedge, New York was successfully completing its initial experiment. Many school districts were keeping track of the Plainedge operation and many of these, including ourselves acted rapidly when the results were publicized.

As educators, we knew something about such federal agencies as the FAA and FCC; however, more education was painfully forthcoming in our experience in dealing with them. The construction permit was greeted like a letter from a relative believed to be deceased.

# HFC COLOR SCENE TESTER



## FEATURES

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8. To meet conditions of developer modifications and emulsion changes, the overall light output is adjusted by a 30 point switch. This switch controls the energy supplied to the lamp by changing the amount of capacitance across the lamp, this direct control of energy input to the lamp, by discrete amounts of capacitance, with the voltage held constant, provides excellent, simple, control procedure.
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12. The power supply has been designed to allow rapid charging of the capacitor bank so that no time is lost between successive exposure of strips.
13. The negative film is guided over the flat exposure gates on rails which are spring loaded to float above the engraved glass in the exposure gate, thus eliminating possible negative scratches. Firm negative/positive contact at time of exposure is accomplished by the spring loaded platen.
14. In this tester there are no meters, no shutters, no optics, no motors and no moving parts between the light source and the negative positive plane.

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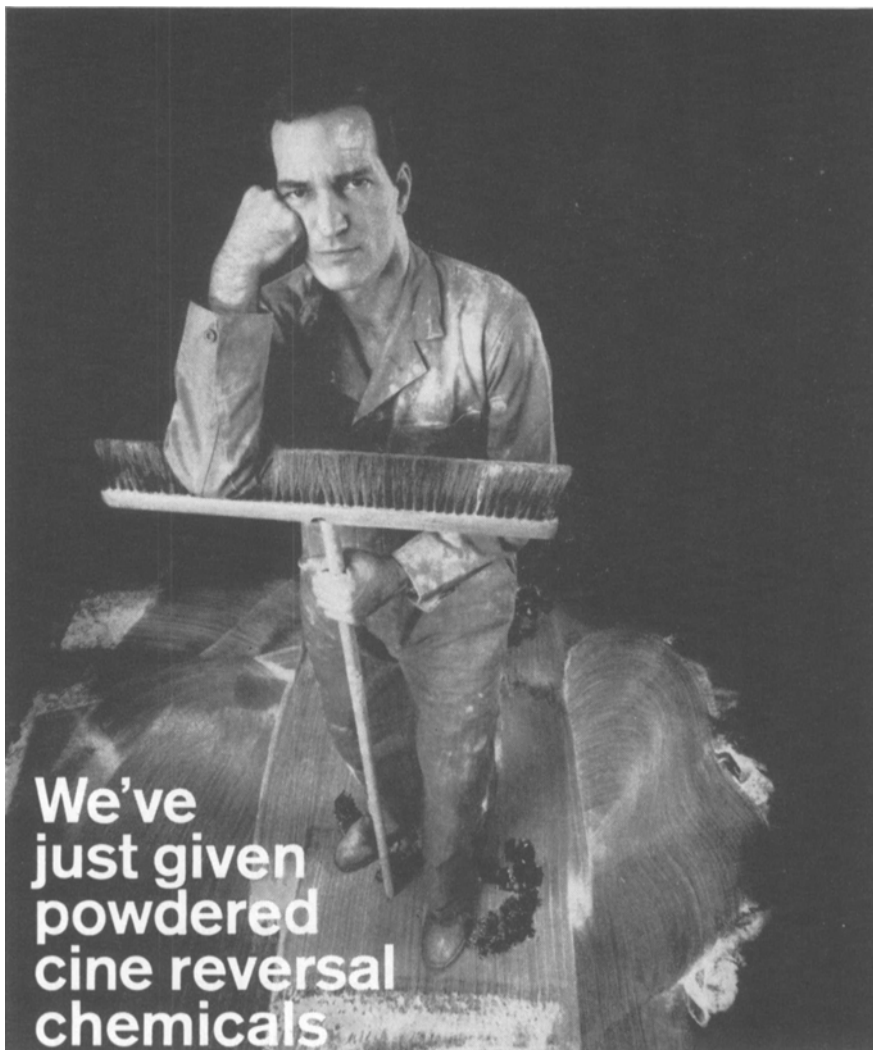
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While the tower was being constructed a transmitter location was obtained, remodeled and air-conditioned to house all control and recording equipment as well as the transmitter. At about the same time, the master control room was made ready, and nearly on schedule, the tower was also finished. At the same time, distribution systems were being installed in some city schools; but even when the transmitter and tower were ready they could still not get our programs because installation and orientation of the receiving dishes was held off until a signal was available. As soon as this was accomplished, the first few schools were able to receive our programs.

It was decided to wire the 52 buildings in three stages: first, 13 schools; then a group of 20 schools; finally, in a third phase not yet begun, the remaining 19 schools are scheduled for wiring while two more channels are to be added.

### Programs

Programs produced by the City School Districts' ITV installation have covered the areas of Business Education, Social Studies, Industrial Arts, Home Economics, Music, Mathematics, Addresses by the Superintendent, Interviews with visitors such as dancers from the Phillipines, Governor Rockefeller, and Senator Kennedy.

### Staff

The professional staff for our entire programing consists of an executive producer, a chief engineer and his assistant, one producer/director and a graphic artist.

### Equipment

Obviously, just as there is little comparison between the staffs of commercial and instructional television, the equipment differs. The particular needs of ITV can be met with good economy and at low cost, which need not always mean lesser quality if the needs of ITV are carefully considered. The equipment must be durable and capable of extraordinary handling by various personnel, including high-school students, and even grade-school children and housewives as cameramen. Besides simplicity there must be flexibility because equipment may be called upon to do many things.

Among the advances which have directly helped ITV in the new 2500-MHz transmission system offering multiple channels. Also, low-cost video-tape recorders are rapidly being made a part of ITV installations. Almost all ITV cameras are vidicon, but there is a current interest in Plumbicon tubes, whenever they may become available. ITV needs color and the time may soon come when color equipment will cost little more than

# reflex bnc?

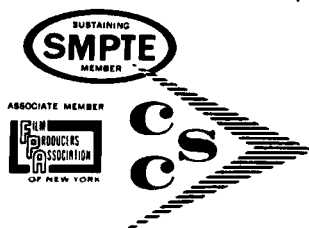


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present black-and-white image-orthicon cameras. A special-effects generator\* has been produced seemingly with the ITV market in mind. A 16mm television projector† has been made to meet all the requirements of ITV, including a cost of about one-fourth that of other projectors available. It is rugged and no more difficult to operate than an ordinary 16mm projector. Its flexibility includes remote-control operation and simple conversion into a room projector. This machine is an example of equipment designed for ITV use.

#### Summary

The challenge is clear. Equipment for ITV must be of high-quality, ruggedly constructed, capable of a variety of complex applications while being easy to operate, and of course, it must cost only a fraction of the counterpart commercial equipment.

\*New Products, *Jour. SMPTE*, 74: 572, June 1965.

†New Products, *Jour. SMPTE*, 74: 887, Sept. 1965.

## Automatic Cartridge 8mm Sound Film Loop Applications in Education: A Progress Report

By NAT C. MYERS, JR.

*Automatic cartridge-loading 8mm sound film equipment specifically designed for application in education became available in early 1963. Applications of this equipment at the elementary, secondary and university level are reviewed, with reference to national distribution of professionally produced and government-sponsored films, as well as to local production and utilization of sound film loops. Important factors are the reaction of educators, the availability of the material, domestic and foreign applications and markets, the relation of film to other media used in education, and future developments in equipment.*

THE PROGRESS REPORTED here has emerged from the pattern of many interacting and often conflicting influences, chiefly human resistance to innovation

Presented on May 5, 1966, at the Society's Technical Conference in Washington, D.C., by Nat C. Myers, Jr., Communications Products & Services, Fairchild Camera & Instrument Corp., Plainview, N.Y. 11803.

(An abridgment of the paper received on May 16, 1966.)

coupled with financial barriers which have been overcome by inspired efforts to solve today's problems in education and by U.S. Government financing.

At Madison, Wis. the public schools have for the past five years used the Heath deRochemont *Parlons Français* programed French course for children in the fourth through sixth grades. The course is given yearly via television to 1,800 pupils. Last year, to find out whether cartridge-load 8mm sound film presentation would help overcome problems of preparation and flexibility, an evaluation was sought from teachers with little or no prior language teaching experience. A notice posted at the central office brought 28 volunteers.

#### The Experiment

The experiment was started with a 1½ hour briefing session with the language coordinator. During the first two weeks the classroom teachers had homework consisting of previewing pupil films as well as practicing with teacher



DESIGN: LAWRENCE BEES / PHOTO: JACK STUMP

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