

R. C. A. Starts Tests of Color Video Receivable Also in Black and White

By JACK GOULD

The Radio Corporation of America, in a dramatic and unannounced move, transmitted television in full color yesterday morning from atop the Empire State Building without interfering with reception on present black-and-white receivers.

The color pictures were televised over Channel 4 from approximately 9:13 to 10:30 A. M. They were reproduced on a home set in the conventional black and white. The set owner did not require any extra equipment or adapter, and could tune in the test transmission just as he could any other program. A converter ultimately would be necessary, however, to receive R. C. A. color on the present type of set.

The experimental broadcasts in color, which are the first to be conducted by R. C. A. in New York, and are to be continued indefinitely, came as the television industry awaited the decision of the United States Supreme Court in the pro-

tracted controversy over color video.

The court is considering R. C. A.'s appeal from the findings of the Federal Communications Commission that the color method of the Columbia Broadcasting System produced a picture superior to that of R. C. A.

Under the C. B. S. system the estimated 12,000,000 sets now in use would require an adapter costing \$20 or more to receive black-and-white images from a color transmitter. The C. B. S. system also requires a converter to receive color on a black-and-white set.

Yesterday's color program originated from Studio 3-H in the R. C. A. Building, 30 Rockefeller Plaza, and was put on the air without advance word. Strangers were not allowed in the studio and officials of both R. C. A. and its broadcasting subsidiary, the National Broadcasting Company,

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made it clear they would have no comment before the Supreme Court had acted.

The first hint that N. B. C. was doing something unusual on Channel 4 came at approximately 8:45 A. M., when, instead of the circular test pattern of Station WNBT, there was a series of vertical bars running down the screen of the receiver.

Later, an announcer came on the air to reveal that the station was N. B. C.'s experimental outlet, KE2XJV, and that the broadcast period would be devoted to "experiment with and development of the compatible, all-electronic R. C. A. color television system."

The viewer then saw still pictures, first of the Houses of Parliament in London and then of a jutting cliff; protracted views of a bowl containing apples, oranges, grapes and bananas; a girl model dressed in an evening gown, and a studio technician who turned his head slowly in close-up. Throughout the color program there was no talking on the sound channel, only a continuous tone signal.

As they appeared on a receiver forty miles from New York, the black-and-white pictures from the color transmitter were, if anything, superior to the monochrome images normally received. Both contrast and definition were noticeably better than in the image produced on N. B. C.'s first regular black-and-white program at 10:45 A. M.

Engineers said the improved picture probably was due to the fact that a color transmitter must be operated at a more exacting degree of efficiency than a monochrome station.

The action of R. C. A. in starting regular experimental color broadcasts in New York, and doing it under conditions permitting the general public to eavesdrop on part of the tests, was expected to be only the forerunner of wider moves to advance electronic color.

Public demonstrations of R. C. A. color, it was learned, might take place some weeks after the Supreme Court decision. There was a possibility, it was reported, that R. C. A. might be ready with several hundred color sets for installation in stores and other public places.

From the scope of R. C. A.'s activity it was widely assumed that the corporation apparently had made further improvements in its system. Last December, at a demonstration in Washington, the method did not appear to the layman's eye to be quite as good as the C. B. S. picture, but the progress that had been made since previous demonstrations was marked. The F. C. C. ruling favoring the C. B. S. system was made prior to the December showing by R. C. A.

Once public showings in New York are under way, it was said, R. C. A.'s plans call for transmitting its color images over a network. New color cameras capable of picking up color scenes out of doors also are being developed in the R. C. A. Laboratories in Princeton, N. J., it was understood. Apart from the color camera equipment in Studio 3-H, yesterday's transmission was handled with standard equipment.

As part of the demonstrations, R. C. A. is expected to emphasize to program sponsors how its system will enable advertisers to see their shows in full color without any sacrifice of the present black-and-white audience. Until adapters were sold in substantial numbers, the C. B. S. system would lose the black-and-white audience

while a color program was on the air.

The R. C. A. method is described as "compatible" because its color picture has the same number of lines as a monochrome image and is scanned at the same rate. It employs electronic tubes to inject the primary colors of red, blue and green.

The C. B. S. system involves both a different scanning rate and a different number of lines than monochrome, which is why an adapter is required, and injects the colors by means of a mechanically-revolved disk or drum.