

# HIGH COURT BACKS C. B. S. COLOR VIDEO

## R.C.A. to Continue Fight for Its System—Columbia to Begin Broadcasts in 3 Weeks

By JACK GOULD

The United States Supreme Court cleared the way yesterday for prompt commercial introduction of the Columbia Broadcasting System's method for transmitting television in full color.

Eight justices of the court sustained the legal right of the Federal Communications Commission to approve the Columbia color system in preference to the method developed by the Radio Corporation of America.

R. C. A. made it clear, however, that it did not regard the color controversy as ended and announced that it would invite the public to see demonstrations of its system. Several large set manufacturers also declared that they would not make sets for the C. B. S. system.

Immediately after the court's decision was made known in Washington, the Columbia network said that it would begin the regular transmission of color shows within three weeks or so. The network said it expected by next fall to offer a weekly schedule of twenty hours of color broadcasts.

C. B. S. stock registered gains of more than three points on the New York Stock Exchange yesterday as a result of the Supreme Court ruling.

### Black-and-White to Continue

The usefulness of 12,250,000 television receivers now installed in homes will not be affected by the court's action for some years to come. Most television programs will continue to be offered in black and white. The color presentations will be limited to the morning or late evening hours and will not disrupt major attractions.

The present set owner will have to purchase additional equipment if he wishes to see a Columbia color program in any form.

To see a color program in black-and-white, the owner must purchase an adapter, the cost of which has been estimated at from \$35 to \$50. Without the adapter, the C. B. S. color program will appear on a black-and-white set only as a maze of meaningless lines. It is for this reason that the C. B. S.

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method is technically described as an "incompatible" system.

To receive a program in color on a present set, the owner must buy both an adapter and converter, the total cost of which has been put at \$100 to \$150.

The Supreme Court's decision did not pass on the merits of the Columbia and R. C. A. systems but merely upheld the legality of the commission's exercise of its administrative discretion in choosing between the two.

## C. B. S. Pictures Held Better

The commission originally adopted the Columbia method on Oct. 11, 1950, in an order that held that Columbia produced the better color pictures. The R. C. A. method, which does not require use of any adapters for present sets to receive color broadcasts in black-and-white, was deemed inferior by the commission. A converter would be needed, however, by present sets to receive the R. C. A. broadcasts in color.

The Columbia network declared that the court's approval of the commission's action removed "the last roadblock to the public's enjoyment of color television in the home."

"The enthusiasm which both the public and important national advertisers have shown for color television gives great encouragement that this exciting new medium will grow rapidly," the network added.

The first converters and adapters for the C. B. S. system are expected to be on the market by mid-summer with the complete color sets also coming off the production line in limited volume.

The largest manufacturer announcing such plans was Air King, which ranks among the first fifteen television set manufacturers. It is a subsidiary of the Hytron Radio and Electronics Corporation and was recently acquired by C. B. S., partly in anticipation of yesterday's decision.

The Scott Radio Laboratories and John Meck Industries were among the relatively smaller concerns going along with the C. B. S. system. The Tele King Corporation said that it had developed an improved method for making C. B. S. adapters and converters without the use of any mechanical parts.

## Incompatibility Stressed

Most of the larger manufacturers of sets, however, expressed continued opposition to the Columbia method or were noncommittal in their plans.

In its statement announcing that it would go ahead with demonstrations of its own system, R. C. A. put major stress on the fact that Columbia's system was "incompatible."

The corporation declared:

"Everyone concedes that a compatible system is more in the public interest than a noncompatible system.

"At the time the F. C. C. made its decision last year it took the position there was no satisfactory compatible system. Therefore it adopted the less desirable noncompatible system.

"R. C. A. has developed a fully compatible, all-electronic color which provides reception of color broadcasts in black-and-white on the nearly 13,000,000 existing sets without any change whatever."

The corporation charged that only a black-and-white picture "degraded in quality" could be received on a set equipped with a C. B. S. adapter.

"Approval of the compatible system would save present set owners about a billion dollars and would avoid waste of material and labor, which is vital in these times," the company concluded.

## Reaction of Other Concerns

Dr. Allen B. DuMont, head of one of the larger set-manufacturing companies, said that he had no plans to make equipment for Columbia method color because, he said, he feared it would be made "obsolete" by a compatible system.

The Emerson Radio and Phonograph Corporation also said it would not make C. B. S. color sets and that a compatible system "eventually will win out." The Philco Corporation noted that it was working with R. C. A., General Electric and others on a compatible system but would be guided by public demand in the matter of making converters for Columbia color.

Spokesmen for Admiral, Zenith and Motorola declined to comment. The Crosley Corporation noted that its later model sets were equipped for attachment of converters but that it did not plan to make such devices.

The companies opposed to the Columbia method are reported to be planning to appeal ultimately to the Federal Communications Commission to reopen the color controversy and look at the improvements made by R. C. A. since October, 1950.

Most of their emphasis is expected to be placed on the difference in the manner in which the primary television colors of red,

blue and green are introduced into the respective systems.

The C. B. S. system employs a rotating disk that contains filters for the primary colors. The disk is spun by a noiseless motor and is placed directly in front of the receiving tube. As the image passes through the filters, the complete color picture is reproduced.

The most popular converter is expected to be a so-called companion or "slave" unit. This unit would contain a separate picture tube with the disk and motor out of sight in their own cabinet. The slave unit could be placed on top or to one side of a present receiver, which would continue to be used for black-and-white reception.

An alternative method, which would be substantially cheaper but less attractive to the eye, calls for the placement of the disk and motor in front of the tube in the present set.

The disk is a limiting factor in the C. B. S. system. The diameter of the disk must be roughly twice the size of the desired image. Accordingly, the largest practical direct-view picture is twelve inches. With external magnification, however, this can be brought up to sixteen inches. By substituting a revolving drum for the disk, a twenty-inch or larger picture can be obtained.

The R. C. A. system employs an all-electronic color tube to inject

the colors. This is done by means of minute red, blue and green phosphors built into the face of the tube.

The color tube, however, could also be employed with the Columbia system and would eliminate the need for revolving disks or drums.

The factor of "incompatibility," however, is dependent on other technical factors besides the reproduction of the colors.

In the Columbia system the image to be photographed in color is scanned a total of 144 times per second and the finished picture comprises 405 lines. Black-and-white television and R. C. A. color call for the same number of scanings—sixty per second—and the same number of picture lines—525.

The difference in the scanning and line rates explains why the C. B. S. system requires an adapter if its color programs are to be seen in either black and white or color on present sets.

Several advertising agencies handling major sponsored programs voiced the opinion that Columbia faced "an uphill fight" in popularizing its system on a commercial basis. For some time, they said, C. B. S. faces the loss of virtually all of the existing television audience whenever it puts on a color program because of the

incompatibility feature of its system.

Advertisers to whom color is especially important, such as rug manufacturers or dress designers, probably will go on color first, they said. To most sponsors, however, they added, a substantial audience is the first requirement, particularly with rising program costs.

Some retail dealers expressed concern over the effect of the new emphasis on color television on the sale of black-and-white receivers now in stock. Manufacturers, distributors and dealers have on hand more than 1,500,000 sets, almost three times the normal inventory. In the last week or two there have been auctions of television sets in the metropolitan area.