

R. C. A. COLOR VIDEO EXHIBITED TO PRESS

Electronic System Also Allows Black-and-White Reception and Higher Fidelity

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WASHINGTON, Feb. 8 — Dr. E. W. Engstrom, vice president in charge of research for the Radio Corporation of America Laboratories, gave a demonstration today of color television electronically controlled so as to be fully compatible with present black-and-white telecasts.

"We have passed another step on our way to color on a commercial basis," he said. "From here on, it is a matter of refinements."

In the demonstration to the press, the same show, originating in the Wardman Park Hotel here and received at the NBC studios, appeared simultaneously on black and white and on a series of experimental color television receivers.

Dr. Engstrom said the introduction of color by this system would not make present television sets obsolete. Their owners would continue to see telecasts in black and white, while those who purchase color sets when they come on the market would be seeing the same performance in color.

He listed as other characteristics of the new color system: high-definition pictures, with "70 per cent greater detail than the mechanical sequential system"; unlimited picture size and brightness; flickerless pictures, without color break-up; automatic color stability by electronics; no mechanical or moving parts—it's "all-electronic."

He said that the next step will be a single multicolor tube receiver which RCA last December promised to demonstrate to the Federal Communications Commission "within ninety days." Dr. Engstrom said RCA would make good on its statement and demonstrate the "multicolor single kine-

scope receiver" in four to six weeks.

This "picture tube," he said, will reproduce television pictures in full color without the aid of filters or other mechanical parts, and thus will reduce the size of the receiving set. The experimental models used today were about the same size across as the kitchen sink plus automatic dishwasher, but taller.

Dr. Engstrom emphasized that the system is not yet ready for the market. Test broadcasts, however, are going forward on a regular program schedule of one hour a day, five days a week.

He emphasized that the color receiving sets were untouched by human hands during the telecast.

"Automatic synchronization and color phasing is an outstanding technical achievement," he said. "In accomplishing it, engineers worked out a method of following the horizontal synchronizing signal with a 10- to 15-cycle burst of another signal at sampling frequency. This burst controls an oscillator in the receiver, which in turn sees that the correct color signals go to each of the three picture tubes."

The color telecasts use the same number of frequency bands in the radio spectrum that black and white does, the demonstrator said.