

# Spot Radio News

★ Presenting latest information on the Radio Industry.

By RADIO & TELEVISION NEWS'  
WASHINGTON EDITOR

**COLOR TV**, probably the most controversial subject since the KDKA days of broadcasting and certainly the seething topic of '49, ripped into the new year with quite a banner assignment direct from the seven men who are judging the future of green, red, and blue in video. The assignment, a field test, and all three who have color systems, *RCA*, *CBS* and *CTI*, were involved.

Colorcasting for a thirty-day period was ordered by the Commissioners to a representative assortment of receivers distributed among . . . "technical and non-technical persons who are not connected with the development of the system." The request, issued in the closing hours of the comparison tests, created quite a furor, since a representative assortment of receivers was just not available and only perhaps a wartime-type emergency production plan might, it was believed, produce the sets. And whatever models could be produced would be on a very limited basis, was the general consensus. The unfortunate interpretation of the test ruling by the general press, cited as a wide-scale public check of color TV, added to the general discomfort of everyone and brought sleepless nights to many a plant man who wondered just how they could race out all the sets required and at a sensible price. Many of the production experts agreed that the receivers would, in the main, be handmade types and certainly quite costly. Commenting on the latter point, a representative of one manufacturer predicted that the cost of about one hundred models which they expected to produce, would be in the neighborhood of a quarter of a million dollars. This spokesman declared that the sets would not be sold, but loaned out to a group of viewers.

As this column was being written, manufacturers were processing the test sets and shipping to locations which should produce the information sought by the FCC. Data that the Commission hoped to collect as a result of the test were expected to cover resolution or definition, brightness, contrast and flicker, registration, color fidelity and spurious images. Also to be explored during the tests were the desired-to-undesired signal ratios in a variety of combinations:

monochrome to color, color on color receiver to monochrome, color on color set to color, color on black and white receiver to monochrome and color in the black and white model to color. There were also to be reviewed signal-to-interference ratios. This study was expected to include tests where the undesired signals are continuous waves other than TV signals, such as oscillator radiation and diathermy interference. The FCC also asked that the tests should include representative carrier differences such as result from the use of standard intermediate frequencies, with particular attention being paid to critical carrier frequency differences. Results from susceptibility to various types of impulse and random noise were also to be reported, with emphasis on the troubles caused by auto ignition, and industrial and home-type electrical equipment.

Four classifications of receivers were described by the FCC as being representative for the tests: Black and white models, adapted to provide monochrome reception from color transmitters; converted or adapted receivers to provide color reception; new monochrome models capable of picking up black and white signals from colorcasts; and color receivers specially built for all color reception.

Observers have been asked to select a viewing distance, within four to twelve times the picture height, when the normal picture is free from interference, and base their reports on their reaction to fixed or variable viewing distances. Information on highlight brightness and contrast required in the room are also being compiled for the Commission, with specific data on the room lighting used during the tests. The FCC suggested that values of room illumination selected should be those representative of the lighting required by one or more persons when reading a newspaper.

Not only have the present bands been selected for study, but the higher 470 to 890 region, too, the FCC hoping to be able to correlate the results on both of these bands for allocation purposes. Transmitter manufacturers are being asked to disclose powers available, frequency stability of visual and aural carriers, particularly

the relative stability as it affects the intercarrier type receivers. Receiver makers were also involved in the higher band quiz, they were being asked to disclose the selectivity, sensitivity, oscillator stability, oscillator radiation and image and other spurious response characteristics of their models designed for the high channels.

The results of these tests are expected to become available at the second comparative test session, scheduled to begin just about the time this issue goes into the mailbag.

The first comparison studies, which apparently prompted the sensational decision to hold field tests, resulted in a barrage of explosive comments on the merits of the systems displayed.

An official spokesman for *RCA* declared that the images on their receivers were . . . "far brighter and truer in color fidelity than in earlier tests. Operation was stable and completely free of flicker."

Dr. C. B. Jolliffe, executive vice-president in charge of *RCA Labs*, said: "All proponents of the art should be impressed by this demonstration. . . . Experience has taught us that the whirling mechanical disk has no place in home television."

The *Columbia* camp was far from quiet with opinions. Said Adrian Murphy, *CBS* vice-president: "The color fidelity of the *CBS* system once again has been proved way out in front. The colors in the *CBS* picture were highly faithful to the original subject matter and were stable."

The enthusiasm for the color results was not shared by Dr. Allen B. DuMont who declared that neither system was adequate. In one, he said, the color changed every minute, and in the other the color fidelity was poor.

To many witnesses at the tests, the *RCA* system appeared to be more stable, while the *CBS* method afforded a more faithful picture. The black and white pictures from the standard monochrome set also appeared to many to have greater definition than black and white results on the color models.

The transmission procedures employed at the tests were unique in many ways. For instance, the studios of *WNBW*, the *NBC* station in the Wardman-Park Hotel, originated programs for feeding to the transmitters of not only *WNBW*, but *WOIC* the *CBS* station, and *WTTG* the *DuMont* setup. During the demonstrations *RCA* displayed transmission over a coax cable, the signal being fed into an eight-mile loop of cable.

**WASHINGTON** lost its hold on the color wrangle for a few days, prior to the comparison test session, the scene shifting to London and *BBC*, where it had been reported color was in the offing.

The report stemmed from the trip Dr. Peter Goldmark had made to London at the invitation of the British Institute of Electrical Engineers to talk about and demonstrate his color

system. According to *CBS* representatives, a system paralleling Goldmark's setup was to be built for the *BBC*, with complete studio facilities being developed to accommodate colorcasting activities.

When informed of the report on *BBC* color work, Sir Noel Ashbridge, director of technical services for the British system, declared that . . . "no definite arrangements have been made for specific tests nor is any practical development in the immediate future envisaged." Sir Noel explained that . . . "the only work in color television by the *BBC* consists purely of research experiments."

Dr. Goldmark, commenting on the experimentation activities, said that he welcomed . . . "any experimentation by the *BBC* . . . and we are quite certain that its experiments with other systems in addition to ours will demonstrate the superiority of the *CBS* method."