

Spot Radio News

★ Presenting latest information on the Radio Industry.

By RADIO & TELEVISION NEWS
WASHINGTON EDITOR

THE COLOR IN TELEVISION saga entered what every one prays will be the final chapter as the first days of Spring approached, with experts pouring into the Commerce Auditorium in the nation's capital to voice their views, views that will make headline news in the days to come.

Reappearing to testify, and in many instances offer vigorous rebuttal to many points, were the two representative groups of industry, JTAC (Joint Technical Advisory Committee) and RMA, and ten others in and out of industry which included *RCA*, *CBS*, *CTI*, Dr. Charles Willard Geer, *Philco*, *Du Mont*, *Webster-Chicago*, *American Television*, *A.T.&T.*, and *Western Union*.

Testimony this time appeared to be more conclusive, covering not only the actual results of systems, which in the earlier sessions were mere paper projects, but new procedures, also demonstrated, which were not even mentioned in the hearings of '49. *RCA*, for instance, revealed its new color method, which had received its first viewing a few weeks prior to the '50 recall, at a special show for the press in the Washington studios of *NBC*, with programs originating in the Wardman Park Hotel color studios. A highlight of the showing, viewed on 10-inch and 16-inch television receivers, was the absence of instability which had affected earlier demonstrations. The use of brief synchronizing radio pulses did the trick, according to the boys in the lab who perfected the method. They pointed out that when these pulses reached the receiver, they served to automatically lock the three primary colors into perfect phase. Specifically, the method involved the use of a 10 to 15-cycle burst of signal at a sampling frequency, which was adjusted to follow the horizontal sync signal. This burst controlled an oscillator in the receiver, directing the correct color signals to each of the three picture tubes used in the system.

Dr. E. W. Engstrom, in charge of research at *RCA*, presided at the showing and pointed out that the new color setup had six features, high definition pictures (claimed to be 70 per-cent greater in detail than the

mechanical sequential system), unlimited picture size and brightness, flickerless pictures without color breakup, automatic color phasing (described above), complete compatibility with present black and white TV, and all electronic, with no mechanical or moving parts.

"These characteristics are of major importance to the public," Dr. Engstrom emphasized, "for they mean that color TV can be introduced with no disruption to the present service."

CBS' testimony also was quite revealing and a bit on the explosive side, with reports of a long list of tests made on a variety of fronts. At the Walker Building demonstrations, *CBS* reps pointed out that Senators, members of the House and their wives appeared and were quite enthusiastic. At a series of special demonstrations, members of the Cabinet, the Supreme Court and the Defense Department, also appeared, according to *CBS* spokesmen. And at a test at the National Art Gallery, members of the Condon committee and two members of the FCC appeared; Newbern Smith, chief of the Central Radio Propagation Section of the Bureau of Standards; George Bailey, executive secretary of the IRE; W. L. Everitt, dean of the College of Engineering of the University of Illinois; Don Fink, JTAC chairman; and FCC members Frieda B. Hennock and Robert F. Jones.

In an effort to keep pace with *RCA*, *CBS* also indicated that they, too, could provide color with electronic circuitry, using a single multicolor tube. At the last session, a tri-color tube was hinted at by *RCA*, and the actual tube was scheduled for presentation before the Commission in the late Spring. The *CBS* tube was described as being usable without any change in standards which they had previously recommended.

Color Television, Inc., the third of the contenders for the standards' prize, also presented substantial test testimony, describing the results of transmissions over *KPIX*, operating on channel five, in San Francisco, California. Seven tests were involved in the viewing, the receivers all located in the Bay area. Plans for additional tests in a downtown hotel in San Francisco were also detailed.

In special interviews in Washington and New York, Arthur S. Matthews, *CTI* prexy, told the newsmen that in the line-sequential system which they used, only minor changes were required in the regular black and white transmission equipment. At the camera, three pictures (red, green and blue) are taken simultaneously by means of a special three-lens optical system, he said, with the 525-line standard being used at the receiving end.

"We feel that the picture our system puts out is good enough, but the important thing is that the system has not reached its limitations and more improvements are possible," Matthews went on to say. "If the FCC does not approve our method, there are other uses, such as closed circuit work in hospitals, in which our technique could be applied without serious difficulties."

Industry, in the form of RMA, JTAC and experts from pioneering companies in TV, was quite bold, too, in its in and out-of-court testimony. RMA's official commentary had been preceded by the general distribution of a booklet, entitled "Is Color Television Ready for the Home?" which was about the bluntest report on the controversy to date. In the report, the association disclosed that the majority of the television set manufacturers have urged that no color broadcasting standards be approved by the FCC until the proposed systems have been thoroughly field tested. This, they said, is the only way to determine whether color reception is basically satisfactory under everyday conditions, as contrasted with the carefully controlled demonstration setups which have been used so far by all the sponsors. Once basic standards are set, the report continued, they cannot be changed without involving obsolescence of every piece of transmitting equipment and every receiving set then in existence. When standards are set, all future improvements must be within the framework of those standards, RMA went on to say in their appraisal of the situation. Accordingly they added, the original framework must be a sound one, one suitable for years to come. And since color television will need not one, but a dozen such standards, the harm that could be done by over-hasty action is apparent. Answering the question as to whether all broadcasts would be made in color, when color TV becomes available, RMA boomed a decided *no*, citing the case of the motion picture industry, where at least 85 per-cent of all feature pictures are still produced in black and white, even though the color processes were developed years ago.

In an extensive survey of the *CBS* system, RMA declared that pictures broadcast over the proposed *Columbia* setup would have a definition of only 405 lines, as compared with 525

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now used. CBS conceded, RMA pointed out, that there would be a 45 per-cent reduction in the ability to portray detail, which was certainly a step backward as far as picture quality is concerned.

The reorganized National Television System Committee, also described widely in bulletins released prior to the sessions, was discussed at length in the official halls. This group also fostered the development of a commercially practicable system of color TV, and offered vital statistics disclosing why the freeze should be removed immediately and how the ultra-high channels could be allocated to fit within the framework of the present very-high system.

Evidence of blistering testimony which would be heard as the days rolled on, hit the hearing room, as excerpts from earlier talks by Dr. Allen B. DuMont and others were released. Appearing before a group of eight Washington legislators, representing New Jersey, at a breakfast meeting in the Mayflower Hotel, Dr. DuMont had charged that the Commission had interfered seriously with progress of the art by the continuance of the freeze. Criticizing, in particular, the two gentlemen who appeared to be color's most ardent supporters, Senator Edwin C. Johnson and Commissioner Robert F. Jones, Dr. DuMont said: "The Commissioner condemns private interests because these interests think it would be a grave mistake to foist an unsatisfactory color system on the American public. He condemns the more than 100 manufacturers of receivers, television broadcasters, and the manufacturers of transmitting equipment, because we think it a criminal mistake to make the future allocation of additional channels for black and white wait for a decision on the matter of color. A truly intelligent and lasting decision on this matter of color may take years and the spokesmen for our industry do not think that the American people will be willing or should be forced to wait these years to enjoy adequate television reception. . . . I should like to assure both the Senator and Commissioner that television broadcasters and manufacturers alike will reap tremendous benefits from a really good system of color television transmission and reception. If there were such a system in existence, every industry spokesman would be camped on the Commissioner's doorstep urging and pleading for the immediate adoption of standards."

A prior talk by Commissioner Jones, before the Lima Section of the AIEE, also left its volcanic rumble in the halls. Chiding industry, the FCC gentleman declared: "I am amazed at the present thinking of the executives in the radio business. They

have been getting credit for the great changes in radio since 1920. But frequently these changes are not due so much to the ingenuity of the executives of the large corporations, as to the characteristics of radio itself. It is an empirical art, and many who have no big commercial stake in the status quo experiment with it and are responsible for many of the developments. Whereas a year ago I credited the big executives with imaginative genius, I now realize after listening to the manner in which they have approached the introduction of polycasting, opening of the ultra-highs, utilizing FM transmissions and color television, that they have a negative approach until economic necessity drives them to pitching in and finding answers for the Commission, and, of course, for themselves."

Commenting on allocations, and particularly an earlier statement from Walter Evans of *Westinghouse*, which disclosed that one of the major problems faced by the art has been distribution which could be solved by Stratovision, once the larger metropolitan markets have been provided with service, the Commissioner said that this concept of large city service first, appears to be shared by industry. "To me, Stratovision is not something to be considered *after* the large cities have been taken care of in the allocation plan," he added. "It is something to be considered at the very same time that we are trying to allocate stations to the big cities. The order in which allocations are made should not be big cities first and little cities second. Provision should be made for affording service to all the cities at the same time. In other words, if engineering concepts like Stratovision are to really do the job that they potentially have within them, they will have to be considered on a sound engineering basis, uncontaminated by selfish economic interests, or they will fail to achieve their full potentiality. . . . By this I don't mean that economics can be completely removed from the allocations plan. Stations have to make money if they are to survive. But new economic ideas are certainly possible."

TV appears to have sparked some rather searing opinions, which will be bouncing about the rooms of Washington for quite a spell.