THE KOREAN CRISIS AND COLOR TV found themselves common targets of scathing Congressional comments as the race to set standards reached its final stages toward the closing weeks of summer. With rumors, indicating that the Asiatic situation and our heavy defense plans might stifle a color decision, whispering through practically every office in the Capitol, legislators concerned with communication activities became quite concerned. Someone had to confirm or deny these whispers, it was felt. And someone did, in a blunt decisive way, Senator Edwin C. Johnson. As chairman of the all-powerful Senate Interstate and Foreign Commerce Committee, who sparked the color hearings, it was believed that his remarks would tell the story. The story was told in an acid letter to FCC Headman Wayne Coy, which blasted the whispers, denouncing them as "busbody scandal mongers."

Describing the employment of the current crisis as an alibi for delay by the detractors of color television and a frantic move, the Senator declared that such thinking shows "how desperate they (rumorists) are for any excuse for procrastination, deferment, or weaseling words," proposed findings which have the deadly effect of delay itself. The Senator then added in this letter, which incidentally was believed to be so important that it was entered in the Congressional Record, that "it is wholly unrealistic for these selfish interests to seize upon the war needs as an excuse; it indicates an utter lack of appreciation of the important part played by electronics in modern war."

In the Senator's opinion, the "immediate commercial utilization of color television would be of vast aid to the defense effort in testing engine flame colors, observations of guided missiles, surveillance of various atomic processes, and in a number of other still secret processes and developments. Whether or not the Korean conflict, or even a major expansion of it, would seriously affect production in the electronics industry is beside the point."

Declaring that Korea was not part of the testimony, the fiery statesman said that "even if it were honestly believed that a decision for immediate utilization of color could not be put into effect, because of the war, the Commission has no duty or responsibility or even right to use such an anticipated development as a prop for no decision now, or for a proposed or tentative decision, or for anything other than a clear-cut definitive decision based on the record before it."

Referring to letters sent to the FCC by the proponents of color, urging a prompt color decision, the Senator stated that these letters "prove conclusively, once and for all, that the selfish interests conspiring for delays are not the pioneers who have fought the hard battle in the laboratory and expended millions of dollars to make this amazing recreational and educational development available to the American people."

Banging into the whispers, the Senator added that these "busbody scandal mongers... ignore the nine months of tedious, detailed, and searching hearings only recently completed, the most intensive ever held by an administrative agency. They forget the time and money spent by RCA, CBS, and RCA in presenting their cases. Any further delay will place us far behind the rest of the world in this potentially phenomenal improvement of the television art."

Soon after this stinging note reached the Commission's office, Chairman Coy declared that the FCC did not intend to delay its color decision because of world problems. "The chairman of the board of RCA, General Sarnoff, also rebuked those who had been waging a delay war, in a letter to the Commission, stating that..." On behalf of RCA and NBC, we wish to reiterate that we have not and do not favor any delay in the establishment by the FCC of commercial standards for color television..."

CBS's proxy, Frank Stanton, also forwarded a strong note criticizing delay movers to the seven guardians of the ether, declaring that "I would like to underscore what the record already makes clear, that Columbia has always wanted and now wants a prompt and definitive decision adopting a system of color television and fixing full commercial standards therefore. We are not and never have been in favor of any deterrent whatsoever of a definitive color decision."

While in the Senator's caustic barrage of words, industry was praised for its efforts in the color push, the singular effort, of which many believe the admirer of color was particularly proud, was the Condon report, which appeared shortly before the historic letter was framed. It was this report, which in its semi-official status indicated that color TV was now possible, and thus bolstered the Congressional leader's views. As stated in our report last month, the Condon Committee edict declared that the CBS field sequential system had reached a satisfactory stage as to color fidelity, but was not likely to improve substantially, while the RCA system can be expected to improve, and the CTI, which was less fully developed, has "somewhat greater possibility of future improvement."

The Condon report was met with mixed reactions by the proponents, particularly CBS and RCA, with CBS' vice-president, Adrian Murphy, highly critical of several sections of the review. According to Murphy, the report "by dealing primarily with theoretical ultimate limitations, which may or may not be achievable to some extent, obscures the comparative readiness of the respective systems to render satisfactory commercial service to the home on both local and network basis."

Moreover we feel that some confusion on this score results from the opinions on... potentialities and future improvements... The paragraphs referred to on one hand do not explicitly cope with relative readiness, and on the other hand they seem to indicate, by implication, that a system has an advantage because it has more potentialities yet to come. This seems tantamount to implying that in the 100-yard dash a 15-second man is more promising than a 10-second man because the former has greater opportunity for improvement."

From RCA's lab director chief, Dr. C. B. Jolliffie, came the comment that the committee had gone "out of its way to be fair"... and that the group was "entitled to great credit for its brilliant job in presenting a clear, constructive analysis." There appeared to be one section of the report of which Dr. Jolliffie was somewhat critical, and that covered the commentary on the disc. The Condon group had cited the advantages of the filter, but according to Dr. Jolliffie, omitted the disadvantages. On this point, he declared that if disc apparatus is to aid CBS in the categories of color fidelity, registration, (Continued on page 145)
convertibility, small area and inter-dot flicker . . . for securing purposes . . . RCA should be entitled to offsetting points under additional categories for electronic versus mechanical operation, no limitation of picture size and no limitation of viewing angle."

**IN A CONTINUING EFFORT** to prove the worthiness of their color system, RCA demonstrated over a coax-ultra high circuit between Washington, New York, Princeton, and Bridgeport, how signals could be transmitted effectively over a 200-mile wire line, relayed over a high-frequency radio link and eventually be rebroadcast on the ultra highs. Signals originating in the studios of WNBW, at the Wardman Park Hotel in Washington, were piped over a coaxial line to WNBT in New York, and from this point beamed to a receiving station at Princeton, about 45 miles from New York City. At this key point, the signals were fed to a relay circuit and aired to NBC's experimental ultra-high station at Bridgeport. At a site twelve miles away in the home of NBC's chief engineer, O. B. Hanson, the final signals were received on a converted v.h.f. color receiver.

A few days prior to this special test, appeared a report which also disclosed the progress which had been made at the receiving end of color. The text revealed that research work on RCA color tubes had now reached a point where receivers using these tubes can produce color pictures of increased brightness and substantially the same resolution and stability as pictures produced on standard black and white receivers. Commenting on this advancement, Dr. Jolliffe said that the increase in brightness of the tri-color tubes has been due to the development of an improved red phosphor, making it possible to eliminate the red filter from the front of the tube and thus increase light output two to one, and the use of improved tube techniques which provide a higher light output, using the same applied voltages as used in the original demonstration models. It has also become possible to build a color tube whose length is approximately the same as a standard monochrome picture tube.

There will be quite a color-program schedule for Washington this fall, according to Dr. Jolliffe, who pointed out that a seven-day plan is being pre-

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pared to replace the present five-day arrangement, with studio presentations being offered every day from the Wardman Park studios.