

COLOR TV COMPARATIVE DEMONSTRATION

February 23, 1950

at F.C.C. Laboratory
near Laurel, Maryland

PART A

Test Patterns and Program Material

All receivers will be operated simultaneously from antenna systems provided by proponents. CBS will receive signals from WCIC on channel 9, CTI from WMAL-TV on channel 7, and RCA from WNBW on channel 4. The programs will originate in separate studios, but sample materials will be available at the demonstration for comparison purposes. Monochrome receivers will be available near hall on first floor to show reception of the several color signals in monochrome.

TEST NO. 1

9:00 to 9:10 a.m. - Wedge test pattern with half of wedges in color. Test pattern moving very slowly horizontally during first five minutes, to protect camera tubes, but being moved somewhat faster, both horizontally and vertically, during second five minutes to simulate usual camera movements.

TEST NO. 2

9:10 to 9:20 a.m. - Moving test pattern with rotating paddles of various colors operating at approximately 1/2, 1-1/2, 5 and 15 R.P.S.

TEST NO. 3

9:20 to 9:25 a.m. - Keyboard test pattern - patterns first to be shown in normal position and then slowly rotated to position with maximum width vertical.

TEST NO. 4

9:25 to 9:30 a.m. - Special test pattern with fairly fine lines.

TEST NO. 5

9:30 to 9:35 a.m. - Shelves of canned goods, toweling, and other products.

9:35 to 9:45 a.m. - Intermission.

TEST NO. 6

9:45 to 10:00 a.m. - Live program - singers, dancers and models. All parties to provide views with persons full length, medium shots and close-ups. Singers first five minutes, dancers second five minutes, and models third five minutes.

TEST NO. 7

10:05 to 10:10 a.m. - Five minutes of program on present standards to show reception of standard monochrome on color receivers. (The receivers during this test will be operated from a channel 4 signal supplied by the Laboratory but originating at WNBW.

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PART B

Fringe Area, Interference and Ghost Problems

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All receivers will be operated sequentially on channel 4 from signals supplied by the Laboratory. The desired signals originate from the same stations as previously. The purpose of these tests is to show the nature of the phenomena and the approximate order of the effects. The program material will be the various canned goods and other materials identical with those of Test No. 5 above.

TEST NO. 8

- 10:15 to 10:30 a.m. - (a) Interference from Co-channel Station Offset 10.5 kilocycles at ~~-26~~ db.
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- (b) Interference from Normal Tolerance Co-channel Signal at -34 db. (Interference from standard monochrome signal.)

Both (a) and (b) will be shown on the CBS system, then on the CTI system, and then on the RCA system.

TEST NO. 9

- 10:30 to 10:45 a.m. - Interference from Other In-channel Signals at -20 db. (Ratio of peak of sine wave interfering signal to peak of TV signal.) Proceeding from low frequency end of channel slowly up thru audio carrier and then returning to low frequency end. Order: CBS, CTI, RCA.

TEST NO. 10

- 10:45 to 11:00 a.m. - Fringe Area Reception. The signal to each distribution amplifier will be reduced to 100 microvolts across 50 ohms. (RMS value of sine wave having same peak-to-peak value of TV signal.)

TEST NO. 11

- 11:00 to 11:15 a.m. - Ghost Problems. Each receiver will be provided a signal with a ghost of varying phase at -12 db.
- 11:15 to 11:25 a.m. - All receivers back on own antennae with live program.

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Detailed Studio Routine for Color Television Comparative Demonstrations

of CBS, CTI and RCA, February 23, 1950. Starting 9:00 am.

- NOTES:
1. This routine is intended to amplify official FCC schedule (Docket No. 8736).
 2. Each test will begin simultaneously in each studio upon receipt of FCC cue from Laurel Laboratories "All studios commence Test No. ___."
 3. All tests are subject to FCC request for repeat.
 4. Between tests no pictures to be on receivers.
 5. Tests 1 through 4 to have standard station tone.

Test No. 1a

- 00:00 Test pattern used in November tests, moving very slowly horizontally.
- On Cue Same test pattern with panning horizontally and vertically to simulate usual camera movements.
- Framing to be standard.

Test No. 1b

- 00:00 Test pattern with two wedges in certain colors.
- On Cue Same TP with panning horizontally and vertically to simulate usual camera movements.
- Framing to be standard.

Test No. 2a

- 00:00 Rotating 4-blade paddle with half gray, half black background, revolving at speed of 30 rpm or as near thereto as possible.
- 01:15 Same at speed of 100 rpm
- 02:30 Same at speed of 150 rpm

03:45 Same at speed of 250 rpm
Framing to be outer ends of paddle vertically.

05:00 End of Test 2a.

Test No. 2b

00:00 Single white blade rotating against black background at same speeds, timing and framing as in Test No. 2a.

Test No. 3

00:00 Keyboard test pattern filling frame, keys vertical and widest keys at top. Slight movement to prevent burn-in permitted.
Framing to be entire card.

02:25 Rotate pattern slowly to keys horizontal with widest keys at left but camera in same position. Slight movement to prevent burn-in permitted.

05:00 End Test No. 3.

Test No. 4

00:00 Special TP with fairly fine lines framing at outer tips of outer 4 crosses. Slight movement to prevent burn-in permitted.

05:00 End Test No. 4.

Test No. 5a

00:00 Products shown on shelf with framing to include entire board with black margin barely showing. Products placed on shelf 2 at a time in following order (15 seconds for each display):

1. KIX - Shredded Wheat
2. Wheaties - Dole Pineapple Juice
3. Libby's Tomato Juice - Donald Duck Grapefruit Juice
4. Crisco - Old English Paste Wax
5. Pall Mall Pack - Old Gold Pack
6. Philip Morris Pack - Chesterfield Pack
7. Lucky Strike Pack - Camel Pack

8. Orange and yellow towels (folded).
9. Green and blue towels (folded).

Celophane to be removed from cigarette packs.

02:15 End of Test No. 5a.

Test No. 5b

00:00 Same products in same order and timing, displayed by girl holding products one in each hand with following framing:

Bottom of frame - Bottom of KIX box held under girl's chin. Top of frame - top of girl's head.

Girl to wear white costume.

Audio optional.

02:15 End of Test No. 5b.

INTERMISSION - 10 minutes

Test No. 6

00:00 Singer - full length shot (head to toe)
01:30 Singer - from waist up (panning down, if desired)
03:00 Singer - from shoulder-line up
04:45 End singer and ready dancer
05:00 Dancer - full length shot
06:30 Dancer - from waist up (panning down, if desired)
08:00 Dancer - from shoulder up
09:45 End dancer and ready model
10:00 Model - full length shot
11:30 Model - from waist up (panning down, if desired)

13:00 Model - from shoulder up

15:00 End Model

All parties to feed audio throughout this test. No pictures between acts. May use more than one model if desired.

Test No. 7

00:00 Black and white live pickup on present standards (by NBC).

05:00 End live pickup.

Test Nos. 8, 9, 10, 11

00:00 Same girl, same KIX box, same framing, same costume as in Test No. 5b. Movement to prevent burn-in permitted.

1:00:00 End Test 11.

Test No. 12

00:00 Live programs simultaneous, feed audio.

10:00 End live program.