

TV GUIDE

15¢

THIS IS **COLOR** TV



**WHAT HAS TV
DONE TO MEN?**

COMPLETE PROGRAM LISTINGS
Week of June 26 to July 2



Dinah Shore



This Is **COLOR TV**

A Look at the Record To See What's Ahead

THE public, the Federal Communications Commission, three of the four major networks, and, unwillingly, your neighborhood dealer, are now caught up in the whirl over color television. It's about time, as Al Smith said, for a look at the record.

The major new development, giving rise to statements that color television might be available to the public by Christmas, is illustrated in connection with this article. It's the RCA all-electronic compatible system, which needs FCC approval before it can be brought to the public by the National Broadcasting Company.

The other rivals in this race to bring color to the public are the Columbia



Color photo (top) and black-and-white shot were made from TV tubes. The girl is attractive Marie McNamara.



Three color television cameras trained on Miss McNamara during experimental shots.

Broadcasting System, which has developed a system built around a mechanical disc, and the so-called Lawrence tube, developed by Dr. Ernest O. Lawrence and Dr. Luis Alvarez.

If you're puzzled by the terms used in this controversy, all-electronic means that color transmission is handled by image orthicon tubes, as for regular black-and-white transmission; compatible means that the color telecasts can be received by standard black-and-white sets in black-and-white.

The picture at the top of Page 5 shows clearly what must be considered the leading color television system on the basis of recent tests.

It's a picture taken directly from the face of a television set tube during a demonstration of the RCA system. As closely as possible, subject to the limitations of photographing and reproducing in color, it matches the reception as you, a viewer, would

see it in your own home.

The original picture, when magnified, showed a faint dotted pattern. Such a pattern is an actual part of the color television operation.

The face of the RCA color tube, under a microscope, can be seen to be made up of a mosaic of color dots. They are arranged in groups of three—red, blue and green—all over the face of the tube.

From the base of the tube, electron "guns," each receiving the signal for one of these primary colors, send a stream of electrons to the face of the tube to set the appropriate color glowing. The blending of these colors reproduces the scene in full color on the screen.

When the transmission is in black-and-white, these same colors are combined to form various shades of gray. The result is the black-and-white picture which appears on Page 5. Actually, its "black-and-white" is a

blending of red, blue and green.

Standard sets, such as you have in your home, would receive the same telecast in normal black-and-white.

The system has been tested repeatedly and demonstrated successfully. Equipment for color transmission is in experimental use. Some receiving sets have been manufactured. What, then, is holding up the release of color television to the public?

Well, for one thing, the FCC has approved only the CBS system, which is not compatible. You could receive these color telecasts in black-and-white on your present set only if you purchased adapters and converters.

Several Congressional leaders, notably Sen. Edwin C. Johnson (D., Colo.) are now pushing for FCC approval of the RCA system. But critics say that if two systems are approved, chaos will result. Set-owners will be able to receive one or the other, but not both. You'd miss roughly half of the color programs.

The color sets also will be expensive, at least until they can be mass-produced. Ross Siragusa, president of the Admiral Corp., said recently that both the Lawrence and RCA tubes now in use are "hand-made, bulky and very expensive."

There's the problem of color equipment which is understandably more complicated and sensitive than black-and-white receivers.

There's the possibility that new developments may be just around the corner. RCA, for instance, uses a color television camera with three image orthicon tubes, one to pick up and send out a signal for each of the three primary colors. But it is also developing a single tube that will handle this whole job.

Then there are those like Dr. Allen B. DuMont, who believe that a successful three-dimensional television system should take precedence over color.

Dr. Elmer W. Engstrom, vice-president in charge of the RCA Laboratories Division, has summed up that

company's case before the FCC. He says that field tests now being made will be the basis for an application to the FCC to have the RCA system approved.

"We have the know-how to broadcast color programs," Dr. Engstrom testified. "We have the know-how to build the equipment, and we have the know-how to build the sets that will receive these color programs. In addition, we have a nucleus of trained personnel ready and waiting to do the job."

He stressed that there was no intent to hold back the development of color television.

"RCA has been, and is today, doing everything that it knows how to do to advance color television for the home," he asserted. "RCA has everything to gain by bringing color television to the American public at the earliest possible date."

At least three steps will have to intervene before you can look forward to color television reception in your home. The FCC will have to decide flatly and finally on which system is to be used. The equipment for transmit-



Engineers in New York's Colonial Theater monitoring demonstration of equipment used in color television.

ting color telecasts will have to be standardized, manufactured and distributed to networks and big individual stations. Receiving sets will have to be standardized and put on a mass-production basis to lower costs.

It's going to take awhile. Meantime, happy black-and-white viewing.