



by Samuel Kaufman

WHENEVER there's a television hearing going on before the FCC we always lend the event a very keen ear. And, now, the latest official video gabfest has gone its way and we're busily sifting through the data.

Best news of all is that the commercial "Go!" signal on telecasting is about to be turned on. And the little fellows (and some not so little) are primed for the launching of a new industry that may lead to big and consistent financial returns. But what was most surprising of all is that the staunch supporters of early commercialization of video transmissions took a somewhat about-face attitude and apparently were not *too* eager to see the commercial ball rolling.

It seems that the certain sight-and-sound men are a bit frightened by any commitment to a minimum program service schedule in the vicinity of thirty hours a week. True, the televisioners would like to see the iconoscope on a commercial status, but the cost and scope of a long program schedule without immediate revenue seems to have the eye-and-ear program producers a bit awed.

And reports from Washington showed that FCC chairman, James L. Fly, was a bit irked by this attitude after the previous championing of a "Television Now!" cause.

But on the face of the facts, the video-

mens' points can very easily be understood.

After all, they are commercial organizations obviously doing everything with an eye on profit. With no deluge of television program sponsors in sight, it will be a considerable time before television programs will pay for themselves. But, with one firm's manufacturing and licensing set-up in the field of television receiver production and marketing, the cash registers of the firm should be quite busy ringing up new business—and plenty of it—long before the sale of television time by telecasters brings in a penny.

Ah! But won't other set makers benefit by the telecasts without necessarily providing programs of their own? Yes, that's true! But even there the manufacturer should benefit substantially through its license-fee collections from a great many—if not all—manufacturing competitors.

But, as the *Video Reporter* sees it, the claim to television channels should obligate the telecaster to a public service on its own part. There should be no link between what the telecaster will offer the public in program fare and what amount it will realize during the first year or so of commercial operation.

The telecaster and, in fact, the whole list of television channel applicants—must be expected to provide a substantial amount of program hours. And not drab offerings! That is their obligation when commercial licenses are granted!

There's little question that—in a reasonable period—the profits from the sale of television time will be big. A superficial glance at the progressive climb of broadcast time sales shows that. But to grant broadcasters public facilities on highly desirable ultra-short waves, and let them lie dormant until the broadcasters see immediate financial returns from providing an adequate program service, is a poor deal to Mr. and Mrs. Look-and-Listener.

THIS would be the right point, apparently, to let out a few squeaks and squawks about the so-called "experimental" programs

that have been hitting the New York area television channels in recent months.

It seems as if the lads in their desire to put on programs that have virtually no production expense, are catering to a capacity audience of standees. All of which sounds mighty encouraging from a merchandising angle until we add the fact that the standees are unseated merely because they prefer to sip their beers and whiskies-and-soda with an elbow on a bar and a foot on a rail.

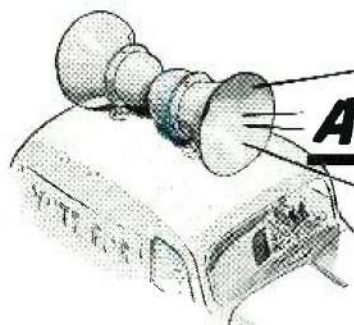
In other words, bars and taverns galore are making the most out of the skeleton schedule of sports programs.

Now, before we sound like a blue-nose, we must hasten to explain that we think the ruddy-proboscis lads have every right to television entertainment they enjoy. But it's certain that such a type of audience would have limited advertising appeal to would-be television sponsors. And before we go on to fret that the telecasters won't stand to gain from building up this type of audience, we must make it clear that our one and only concern is about the program service the *average family* would get. Sports are fine television fare. But there must be other topics too. And by "other topics" we don't mean the Grade Z movie reels New York television fans have already suffered through.

We can't criticize the telecaster for the fact that its programs are being exploited by bars and taverns. And we'd even concede that a drink or two might be essential when glancing at some of the stuff on the cathode-ray screen. When a window streamer on a saloon window proclaims "TELEVISION TONIGHT . . . BASKETBALL MATCH . . . TRY BILLIE'S SPECIAL TORNADO BOOMERANG FLIP," there's nothing implied that's detrimental to the program producers. But compare such an instance with a telephone call from your next door neighbor to invite your family over for an evening's television entertainment.

Only when television gets to the "next door" stage—when your neighbor boasts of the excellent programs he received the night

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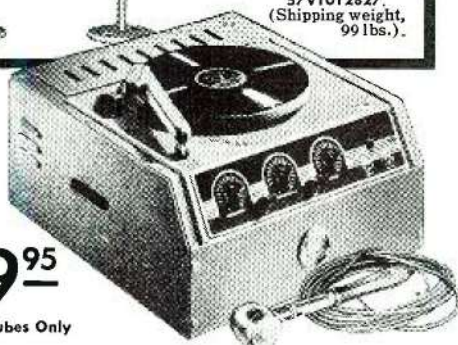
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time being a serviceman while he completed that training, well and good. He was the man who could logically suppose that he would find a job now that he had completed his training. But if the serviceman was dawdling at his bench for, lo, these many years, and not training himself to step into a responsible job in some plant, he cannot think, except erroneously, that he is going to get a job because of the shortage of men. That shortage, if it exists, is of trained, highly qualified, technical radio engineers, and similar types,—not in has-beens whose sole claim to the job is their desire to be so employed. There is never a shortage of lazy people, and the servicemen are no exception.

Then to those servicemen who are not lazy, who have kept abreast of the times, whose technical knowledge is on a higher plane than that of their competitors, I say that they should stay at their respective benches. As salaries rise, so will the cost of living. As the cost of living rises so will the fees they will collect for radio repairs rise. And when the pinch of priorities makes itself felt in the serviceman's trade, it will be the better trained, who can make a makeshift do a first-class job, who will cash in. Remember that the other man's yard always seems greener than yours. But unless you know his headaches also, you should not consider that he has all the best of it. . . . In fact, you may be much better off than he.

Again we stress the fact that the serviceman is in a position to really make his weight in "gold," if you will pardon the simile, by sticking it out. Look neither to the left, nor to the right, but hoe your own row. Do it carefully, do it completely, and above all, do it smartly. When the smoke of battle clears away, it will be the smart serviceman, who kept his training up to snuff, stuck to his job, who will find that the business has increased for him, that his profit-and-loss statement for the year will be much on the profit side. Not the least help towards getting that profit bigger will be the shaking out of the serviceman who has betaken himself to the industry, to try to get a responsible position and, having burned his bridges behind him by closing his shop, accepted a minor wiring job for the "duration" . . . which is not forever. Five years after the National Defense Situation has abated will find mostly well-established, even prosperous servicemen dominating the field. They are the stickers . . . smart men!

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on the beach and men with six months' experience scarce. Of the new ships building around these diggings, *Isthmian* has eight which when finished will go into the round-the-World service. *Seas shipping* is building six, *Alcoa S. S. Co.* ten, *Delta Line* three with the *Delbrazil*, *Delargintino* and *Delorleans* already delivered and in service between New Orleans and South American ports. *Bull Line's* three "C-3s" are getting the finishing touches and the *Ore S. S. Co.* has renamed the *Charles G. Black*, the *Venore*, and put her into the Chile-Baltimore run.

With such activity around Baltimore, one can imagine what's doing around other ports

of the U. S. A. We do definitely know that *CTU-Mardiv* are having a tough time filling billets, although they have a majority of licensed professional radiops on their membership rolls. Outside of the draft, radiomen are being snapped up by the *FCC* and *CAA*, the *Maritime Commission* and the War Department with *Bendix* and *Westinghouse* doing their share to deplete the number of seagoing radiops available to keep our communication channels open for traffic. For the past few months this columnist hasn't received a single request for information about job vacancies. So what do harried union officials squawk about now? Radiops and more radiops to fill "reliefs" and new vessel assignments. This problem can only be worked out by the influx of new radiop material and the recent bill introduced in Congress which will nullify the six months' experience law may open the door for the many "hams" who are capable, willing and ready to pound brass on the briny wavelets.

SO chins up and "isms" down in this grand and glorious country where Freedom of thought, of speech, of press and of worship is an accepted fact and not a privilege to be enjoyed by a few exalted fools. . . . And with 73 . . . ge . . . GY.

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Video Reporter

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before—will the new art really have achieved the merchandising impetus tantamount to terming television a "big business."

IT was predicted that some arbitrary standard of television picture definition would be struck between the high and low factions of the *National Television Systems Committee*. Hence, when Dr. W. R. G. Baker, of *General Electric*, who is *NTSC* chairman, presented the *FCC* with revised recommended standards, it was not surprising to find a 525-line picture suggested in place of the previously favored 441 lines.

Dr. Baker added a note of trade optimism when he declared that the defense preparations going on in the U. S. A. would not stymie television development due to any material shortage. "Engineers," he declared, "would find ways and means to find new substitutes."

THERE have been many shifts among experimental television participants regarding promoting or delaying commercial television. Based on statements by company representatives, here's a box score on the commercial desires at the time this article is being written:

"Commercialization of television should be made effective as soon as practicable," said one telecaster. But, the hitch is in the word *practicable*. However, in the words of Dr. C. B. Jolliffe, chief engineer of *RCA Laboratories*, his firm means "when a number of broadcasters have been authorized and are ready to transmit programs on a regular basis and when a substantial number of receiving set manufacturers are ready to make available adequate receiving sets which can be purchased by the public."

A rival firm is against premature commercialization, citing shortage of man power and materials during the national defense program and small present revenue prospects. Favors adoption of *NTSC* standards, but would like provision therein for color television.

DuMont.—Immediate commercialization. Wants flexible standards of 375-800 lines and 15-60 frames, together with provision on synchronization for the *DuMont* waveform.

Zenith.—"Adequate flexibility to set a path for commercial development." Desires minimum program requirements of ten—or as low as five—hours weekly, holding that too-strict service requirements would permit only the largest participants to qualify for commercial operation.

Farnsworth.—Immediate commercialization with no obstacles due to defense pro-

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gram. Recommends five program hours daily.

THERE are reports in television circles that the movie industry is getting more worried than ever over television. The FCC's move towards early commercialization have the cinema lads concerned. And the fact that there are considerable television interests backed by movie firms doesn't actually add a note of favor to Hollywood's views of video progress.

The movie industry may be powerful enough to bring adverse lobbying pressure to retard television's commercialization. But even a more powerful weapon is the reluctance of the film producers to release their better and newer productions to television stations. But, of course, it should be expected that the television firms should pay a fair rental for such privileges, especially since wide telecasting would cut down paid theatre admissions at showings of the same film. And, in these days of double features, pictures are revived so frequently in neighborhood movie houses that it's difficult to proclaim a date when they can be labelled "old."

And, if television producers think they can foist old films on their audiences after they've been shown in everything from cinema palaces to tenth-run nickelodeons, they've got another guess coming.

There must be some basis on which the Hollywood lads can work out an agreeable working arrangement with television stations. Just who will have to yield the most is questionable.

However, television needs films—good films. And it will have to invest in them in either of two ways: Pay enough to rent them for telecasting. Or produce them. And Hollywood is certain to be upset by the latter course. Because, if television companies form their own movie producing units, there's every reason to believe that they will seek additional revenue—after television usage—to rent the reels to theatres.

THERE have been so many reversals of recommendations and opinions regarding television's position that video executives in the New York area are in a quandary.

The vice-president of one firm told the *Video Reporter* that he was so bewildered by rapid-fire changes and switches in trends and decisions that he's decided not to count on anything until the FCC comes out with definite standards on commercialization.

During this period of indecision, many worker's jobs are in jeopardy. Just how long engineering and program production staffs will be maintained at present sizes cannot be ascertained until there's some definite inkling regarding the Government's view.

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Receiver Selectivity

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In the second modification shown, which is used in some sets made by RCA, the tuning circuit is isolated from the a.v.c. and detector grid circuits by a high grade blocking condenser. The tube's grid leak has the effect of producing an automatic bias which may result in the drawing of current from the tuned circuit, causing some detuning or broadening, dependent upon the signal strength. In the presence of a strong carrier or noise interference this circuit would not be very effective. If it were made partially regenerative, through some form of controlled oscillation, the selectivity might be materially improved.

As the selectivity of the parallel resonant circuit decreases with frequency, the image response at the high

end of the band will naturally be much greater and the cross talk effect heightened. An r.f. stage or a regenerative 1st detector would help to alleviate this condition. As the image would be twice the frequency of the i.f. away from resonance either a continuously variable wave trap might be used in the antenna circuit, or, as a shunt across the ant. primary circuit, as shown. An r.f. stage might eliminate the need for a wave trap tuned to the i.f. and placed in the antenna circuit, or for any special means as described for dealing with the image problem.

One means of simplifying coil requirements would be to eliminate the primary winding on the 1st detector coil, since the r.f. tube could be coupled electronically. If the screen voltage is made higher than usual and the plate circuit left open for d.c. the electrons within the tube will not stop at the screen grid because of their high velocity and will pass through to the plate where they will be able to affect the 1st detector grid circuit by virtue of the coupling condenser. The gain will not be as high as in an orthodox circuit, but the coil could be made simpler, requiring less space.

There is still another factor to be considered in any discussion of selectivity of tuned circuits where those circuits are connected with a.v.c. arrangements. As the a.v.c. is dependent upon the level of carrier intensity, there will be variations of the controlling voltage and these variations may affect the tuning, since, at high frequencies, or on the low wave end of the band, there is less shunt tuning condenser capacity across the coil. The effect of the controlling voltage variation is to influence the input capacity of the tube. This detuning, while slight, may at certain dial settings be important. Usually it is not, since the circuits of most receivers have a large amount of stray or distributed capacity, but if the circuit does have a high Q the a.v.c. will affect its tuning at resonance. In the case of an i.f. amplifier of high selectivity the same detuning effect will be present, sometimes causing distortion or overload because of the difference between alignment with a.v.c. not operative and the same amplifier operating under actual conditions of home reception.

It has been found* that this difficulty may be met by using the 6L7 in a special circuit, feeding the control voltage to the number 3 and number 1 grids. For a cathode resistor of 2,000 ohms the ratio 2/5, as a voltage relation of the two grids, has been found satisfactory. With signals greater than .5 r.m.s. volts and if the control grid voltage is higher than -13 volts, the 6L7 may overload, which means the system must be used within a certain range of a.v.c. potentials.

The circuit is shown in the sketch.
* *Compensating Tube Input Capacitance Variation*, QST, p. 42, Feb., 1940. Also, R.M.A. Engineer, Nov., 1939, art. by Farrington.

Further reference:
Regeneration in the Preselector, G. H. Browning, QST, p. 28, Jan., 1940.

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