

# WHY IS THE RADIO

**Despite gross volume of \$500,000,000 last year, few manufacturers made net profit unless also in other lines outside of radio**

**A**CAREFUL survey of the 155 firms in the set manufacturing field by the editors of *Electronics* reveals the appalling fact that with but two or three exceptions these firms did not make a profit on their radio business during the past year, if we exclude the concerns having other operations outside of radio. In a number of instances where other lines of manufacturing were carried on, profitable operations were reported for the year, but in these cases it would be impossible to analyze fairly the loadings of administration and overhead expense, hence the true picture of their radio situation, taken alone, would be difficult to ascertain.

Looked at in any way, from a net-profit standpoint, the situation in which radio manufacturers find themselves is a serious one. It is the subject of discussion wherever radio men meet, and the many angles it assumes have been threshed over in countless arguments and conferences. Many different philosophies of underlying causes and suggested avenues of escape into improved conditions for 1931, have been formulated by radio leaders, and these views have been called upon in drafting up this summary now before the reader.

Let us put down the various causes which radio men and economic students have assigned for the predicament in which radio finds itself. These are, (above):

1. The general economic depression.
2. Overproduction of radio sets.
3. The licensing situation.
4. The coming of the midget.
5. Failure of distribution machinery.
6. Apathy toward broadcasting.
7. The approach of saturation.

Obviously the background for the present radio business situation is furnished by the general economic slump, with its effect on employment, buying power and general business activity.

Overproduction is still a besetting problem in radio manufacturing, even though executives have cut their active production period to a few months or weeks. Radio is carrying the load of a factory capacity *ten or twelve times any production* the trade can possibly absorb. Plants can be operated only a short period out of the year, operators have to be trained for weeks, work at full production only a short time, and are then laid off.

Certainly the whole production situation in radio should be thoroughly reorganized to put the industry on a sound basis.

## **Licensing agreements, patent structure**

Critics of the present licensing agreements within the radio industry, declare that these licenses are a principal cause of manufacturers making no profits. While royalty payments range from 7½ per cent of gross sales to as high as a total of 12 per cent for additional royalties paid other licensing groups, this amount, it is pointed out, comes from licensees in competition with the same products manufactured by the patent-holding companies. This, in addition to strong competition from newcomers to the field producing equipment on more favorable licensing terms, has resulted in an unsatisfactory arrangement within the industry as a whole, it is asserted.

The situation is made even more unbalanced because some manufacturing groups, it is charged, do not pay the same royalty or any royalty to certain patent-holding groups.

Licensees at present are also restricted to radio equipment for home use. Prevention of initiative in developing markets for amplifiers and associated equipment in the industrial and other fields is thus a serious check on diversification of products and markets badly needed, according to the complaint.

Licensees are also restricted from the export field. Here, individual initiative in obtaining outlets for radio equipment abroad is eliminated. The benefit of present foreign patent-pool agreements, which is the basis of this restriction, based upon possible competition from imports, is more than offset by the loss in continuous production that a healthy export outlet would help maintain. American manufacturers can more than hold their

## **SOME "WAYS OUT" FOR THE RADIO INDUSTRY IN 1931**

**Statistical control of production.**

**More uniform factory production throughout year.**

**Purchase of ready-made parts where economic.**

**Diversification of production outside radio.**

**Price schedules that compensate all factors in the merchandising chain.**

**Opening up new territories by increase of broadcast power and "synchronizing."**

**Promotion of public appreciation for broadcasting.**

# INDUSTRY IN THE RED?

own in competition with foreign radio apparatus.

For a good share of the 1931 situation sans profits, undoubtedly the coming of the midget is to blame. The public was ready to purchase such sets and the radio engineer was equipped to design them long before radio sales departments would admit the "midget idea" was more than a passing fancy on the part of the public. Meanwhile some eighty new manufacturers broke into the radio field using the midget as an entering wedge. Other older makers considered midgets only as a preliminary step to selling console models. In some cases the midgets were so priced that they offered only doubtful profits to their makers. So between large consoles that did not sell, and midgets that sold without profit, there was little chance for these manufacturers to make money during 1930.

Another charge frequently brought up is that the distribution machinery broke down and failed to move the merchandise. Certainly the figures show that the number of receivers sold did not dip so much below 1929—only 14 per cent. But dollar volume fell off fully 45 per cent. Evidently the distribution machinery was not adapted to the new kind of load which the latter half of 1930 threw on it. If that distribution machine is to function in the future it must be overhauled and reshaped to handle an even larger volume in number of units while the unit value of the sets reduces to half or less of preceding prices per individual sets.

Probably the public is more sensible of the general group of causes which fall under the head of "apathy toward broadcasting" than to any other of those here discussed, outside of the general business situation. There is no question that members of the public are too often nowadays heard to express themselves as "fed up on radio," and as rebellious against "too much advertising on the air." Great features come and go on the radio programs, yet make all too little impression on the radio audience which seems sated with the feast of riches it has enjoyed during recent years, all without cost. While many small broadcasting stations have been grossly guilty of the charge of a continuous advertising barrage, there is evidence in plenty that the great stations and great networks have held their advertising hours well in hand, and that the percentage of advertising, compared with total hours of service on the air, is only a few per cent.

In some quarters there is a feeling that with half of the homes of the North American continent now equipped with radio sets, saturation is approaching, and that from now on, with the cream off the radio-sales situation, radio merchandising will find a rocky road ahead. This viewpoint overlooks the vast small-town

and rural market, where home-electrification is rapidly coming, paving the way for more radio-set sales. It also overlooks the great amount of new territory which can be opened up with increases in broadcasting service made possible by new developments in the broadcasting art.

## Statistical control of production

But it will not do merely to conduct an autopsy on 1930's misfortunes and miscarriages. The mishaps of the season that is behind us can be analyzed to good account only if we can learn how to apply these lessons to the season ahead. What are the constructive purposes which should animate the radio industry and trade during 1931?

The whole problem of production should be carefully studied, and reduced to dependable statistical information which can serve as a basis for adjusting factory schedules in the light of definite knowledge. An industry which has information about itself can intelligently control its processes, can avoid the pitfalls of excess manufacture, and can escape the later penalties of "dumping," price-cuts and general demoralization of manufacturer, jobber and retailer.

A way must be found out of the present schedule of intense production peaks during a few weeks out of the year, followed by long shutdowns when the plant lies idle and workers are laid off. Factory programs must be

set out so that economical manufacture can be produced without excessive overhead of factory capacity (capacity now many times that needed if production were spread out more nearly over the entire year). In some cases this may mean a complete rearrangement of factory processes, perhaps eliminating long production lines and regrouping the same operations into smaller units which can be more carefully supervised, and rapidly checked against errors and faults. In the opinions of some production managers, marked savings would be made in this way.

An allied situation is that of purchasing parts and accessories "outside," from makers specializing in these items, rather than attempting to manufacture within the factory parts which can be produced better and more cheaply by specialists. A full discussion of the present trend toward purchase of integral parts, and away from complete manufacture, appears on later pages of this issue.

## Diversification into lines outside radio

It is significant that better operating returns are invariably reported by radio manufacturers having outside non-radio lines than by concerns doing an exclusive radio business, with all of radio's seasonal winter demand and

### THE SOURCES OF "RED INK" IN RADIO'S 1930 LEDGER?

1. The general economic depression.
2. Overproduction of radio sets.
3. The licensing situation, patents, etc.
4. The coming of "the midget idea."
5. Inadequacy of distribution machinery.
6. Public apathy toward broadcasting.
7. The approach of receiver saturation.

summer slack. The combination business has a chance to operate at a more *even* load-factor throughout the year, and overhead can be spread over more than the single radio department. Outlets and distribution connections developed in one line can often be utilized in another. And the lesson of diversification—whether with electric refrigerators and appliances, automobile accessories, or entertainment devices—can be applied to advantage all the way down the distribution trail, through wholesalers and distributors, to the retail dealers. For to the last-named retail merchants, such widening of merchandise lines becomes practically a necessity if sufficient volume is to be built up to create a profitable business.

#### Price schedules that produce compensation for all

Much complaint has been heard concerning price schedules, particularly on some of the newer sets. Starting out with long discounts to the dealer, these have usually been sacrificed early in the game, and the resulting net price structure has left few resting places for profits for wholesaler or dealer. List prices have in too many cases been mere fictions.

In tubes, the nominal factory-cost multiplier has been eight and ten times, instead of the common four times in corresponding fields, but such list prices so figured have lasted as such only until the first mail-order catalog could be printed.

Much could be written on the subject of price schedules, but when all is said and done, *radio merchandise must be so priced and discounts so set up that every factor in the merchandising chain that performs a distribution function will get paid for it.*

#### Opening up new territories for radio sales

Fear has been expressed that radio is approaching saturation. This may be true in certain cities and populous areas, where, it can be admitted, the ratio of sets to homes exceeds 60 per cent. But there are still tremendous territories—taking in thousands of small towns, villages and settlements, and millions of farms—which are yet unserved by even one or two good programs of sufficient field strength to make radio listening a pleasure and the purchase of radio sets desirable.

High-power broadcasting for all clear-channel stations when granted by the Federal Radio Commission, will

greatly improve radio reception over present unserved areas, and open up new territories for selling radio sets. Past experience has shown that when power of stations has been increased, local sales of sets has invariably mounted. General adoption of "synchronizing" or operation of many stations on the same channel, now the subject of important experiments, is bound to multiply the usefulness of existing channels and greatly increase the areas served, with consequent increased demand for sets.

Little attempt has been made as yet to merchandise the "two-or-more-set" idea. Lack of originality of set design, and lack of ingenuity in sales efforts on the part of dealers are contributory factors to lack of as wide sales as desired.

#### Reclaiming public interest in broadcasting

The old original thrill of listening to radio broadcasting is in some respects passing. The public must now be stimulated to turn to the wonderful things on its receiving-set dials. Features of world-wide interest and uncounted cost are too often missed, because insufficient notice or attention is given.

The theatrical business has long appropriated a high percentage of its gross to publicity and to advertising its offerings. Radio has already learned much showmanship from the stage and the movies; perhaps its next needed lesson is in the fine art of ballyhoo—simply "shooing the public in" to witness the *free wonders inside the tent*. This is a service which must be undertaken by all hands concerned—broadcasters, manufacturers, jobbers and dealers.

The picture of the radio industry and its troubles and dilemmas, is a complex one. The radio problem has many sides, and can be attacked from many angles. Some of radio's outstanding difficulties have been discussed in the foregoing. No single situation or solution offers the answer sought for. The industry's task in pulling out of the present situation and back to "business normalcy," and then into the manifest destiny of the radio art, will be:

(1) A matter of "clearing the interference away," at many points along the line, and

(2) Getting the now widely separated branches of radio broadcasting and the radio industry and trade to realize their common needs and pull together to the common prosperity of all.



## ENGINEERING, DISTRIBUTION, AND PROFITS

**RADIO** engineering has advanced at an unprecedented rate. The dramatic progress in the efficiency of production of radio receivers has far outstripped the efficiency of distribution. Until the radio executive can find means of coordinating engineering and distribution so that supply and demand may be closer together there can be little hope of profit for most radio companies.

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