



RADIO NEWS

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THE BROADCASTING SITUATION

By HUGO GERNSBACK

EARLY in July the Department of Commerce announced, in accordance with the opinion of the Attorney General, that Mr. Hoover no longer could exercise authority over radio broadcast stations. It was held that the Act of August 13, 1912, made no provision for the Department of Commerce to arbitrarily select wavelengths for applicants, or to prescribe the power with which the broadcasters were to operate. According to this decision, under the law, any one desiring to go on the air has a legal right to do so, and the Department of Commerce has been instructed to issue a license to all that so applied.

This is the situation as it prevails today, and will prevail until Congress passes laws, to empower either the Department of Commerce, or a separate commission, to regulate radio broadcasting.

When the announcement was first made, two months ago, that radio broadcasting no longer was operating under any authority, it was freely predicted that immediate chaos would result, and that every station would either change its wavelength or operate under increased power.

While it is true that, up to this writing, a small number of stations have changed their wavelengths, no such thing as chaos, nor anything resembling it, has resulted, for very simple and fundamental reasons. The few stations which did actually change their wavelengths, did so probably because they had a grievance. In practically every instance they were stations which had been assigned crowded low wavelengths.

While it is a well-known fact that the low wave stations seem to be able to get out better than the higher wave stations, this advantage had been nullified by the fact that the Department of Commerce assigned the same wavelength to a number of stations to operate on, which made it practically impossible for such stations to be heard; and consequently their programs were nearly always ruined. Thus, for instance, among the lower-wave stations we find the following interesting condition, prior to the decision cited.

On 278 Meters there were operating 15 stations. On 275 Meters there were 24 stations. On 273 Meters there were 17. On 270 Meters there were 12. On 268 Meters, 14. On 263 Meters, 16. On 261 Meters, 15. On 258 Meters, 11. On 256 Meters, 14, etc., etc.

It follows that most of these stations, unless favorably situated and isolated geographically, usually had their programs ruined. The condition on the higher wavelengths was not so bad, for here the stations were not so crowded; and for that reason a number of broadcasters took to the higher wavelengths, wherever there was found to be a suitable opening in their various districts, and where the least interference was produced.

In fairness to these broadcast stations it may be said that they did not willfully appropriate their new waves, but duly applied to the officials of the Department of Commerce, and had their new waves officially assigned to them through the Radio Supervisors, this being the only authority that could grant them.

There is, however, another far more important and fundamental reason why there is no likelihood of any chaos, though it had been also freely predicted that, inasmuch as there were 600 applications from new broadcasters, all of these coming on at once would ruin reception of every other station. This has its humorous angle, because at this time of writing, less than half a dozen new stations have come on, and there is little likelihood that, even by January 1, next, there will be as many as thirty new ones—and the reason is very simple.

It costs anywhere from \$75,000 upwards to \$1,000,000 a year to operate a first-class station efficiently. No one is going to risk this much capital unless he has a pretty clear idea of what can be done; and whether there is a law passed or not will make little difference. Even without any law it is practically impossible to put on a new station at the present time without that station interfering with another. And here the Act of August 13, 1912 still holds good, because under Section 5 it is stated:

"That every license . . . shall prescribe that the operator thereof shall not willfully or maliciously interfere with any radio communication. Such interference shall be deemed a misdemeanor; and upon conviction thereof the owner or operator, or both, shall be punishable by a fine of not to exceed \$500, or imprisonment for one year or both."

From this it will be seen that if any new station causes interference, the owner of such a station may become liable for damages, and he will, therefore, not be likely to trespass. Therefore, from a legal standpoint, it is impossible to operate a new station if it creates interference; and, secondly, no broadcast station owner in his right senses would wish to broadcast on some one's else wave,—unless sufficiently separated geographically—because he knows that he would not only ruin some other station's program, but his own as well.

There are some exceptions to this, because locations can still be found, in the United States, where one can operate a broadcast station of medium power—say 500 watts or less—on the wavelength of some other station without any interference, because of the geographical separation of such stations.

For instance, there is room, as yet, in the State of Nevada for broadcast stations (as well as in Alaska) and perhaps in several other states, where it would seem that little interference would be caused by new stations. But the point is that most broadcasters find it necessary to conglomerate in the more thickly populated sections of the country, and it may be said that here it is almost impossible to set up a new station today without trespassing on some other stations' rights.

But as in all cases of this kind, there is usually cause for reassurance; because the tougher the radio problem becomes in America, the more quickly it is usually solved.

A European set could not perform in the United States at all because it would, very likely, not tune sharply enough. And the sets which we are building now far out-distance the sets which we had in 1922. We may be certain that the condition brought about will make for more sensitive and sharper sets as time goes on. So far, no radio problem has come up, with, perhaps, the exception of static, that has not been ultimately solved, to the benefit of the art.

When telephony was young, exactly the same thing that now confronts us existed in the telephone art, when it was almost impossible to pick up a telephone receiver without hearing continuous cross-talk, which spoiled all reception. But the art of telephony needed no laws, other than the common law, to rectify the situation. Ultimately the engineers solved the problem; and such will be exactly the case with radio broadcasting.

In the meanwhile radio broadcasting has not been ruined. Far from it. Radio has always been able to take care of itself, and will continue to do so in the future. To be sure, we all want a radio law to straighten out some of our present tangles, but in the end radio engineering will make the best law obsolete.

" . . . in which the Editor reviews the present broadcast situation—in which he advances the reason why a number of broadcasters changed their wavelengths—why it will not be very simple to operate a new station at the present time, except in certain areas in the United States—why the much-heralded radio chaos has not materialized—and why Radio will probably work out its own salvation in the end . . ."