

RADIO-CRAFT

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RADIO & TELEVISION

"RADIO'S GREATEST MAGAZINE"

U.S. RADIO AT WAR

By the Editor — HUGO GERNSBACK

. . . Radio IS an
important weapon.

HAVE often mentioned in these pages that to the other great war weapons there has been added one just as important as tanks and airplanes, and that is *radio*.

It now becomes all too clear, that if anything, this weapon proves to be much more formidable than even the military suspected.

When the Japanese outrage on Pearl Harbor occurred on the morning of December 7, many analysts suspected fifth columnists' work over the Japanese-language broadcast stations of Hawaii. In the latter part of December the *New York Times'* analyst, Mr. Baldwin, commented upon the fact that the location of the United States battleships at Pearl Harbor was accurately known to the Japanese attackers. How was the information conveyed? Apparently by Hawaii's own broadcast stations, he concludes.

I sounded a strong warning on this point as far back as the May, 1941, issue of RADIO-CRAFT, in an editorial entitled "Radiobotage." In that editorial I said as follows, and I quote:

"*Eternal vigilance* to keep information from going out, either by radio, cable or telegraph, must be the watchword from now on. Since the advent of radio broadcasting, conditions have changed and the "radioboteur"—the Fifth Columnist—who is active, will use the utmost ingenuity to get important information through. It should not take an Edgar Allan Poe to devise effective schemes as to how our radio broadcast stations can be misused to transmit such information, *which on the surface looks innocent enough*. . . . There are other means whereby Fifth Columnists, and foreign agents, can disguise information in more subtle ways which are not immediately apparent. There are a number of foreign-language stations in this country, which to the writer's mind, should at the present time, not be allowed to broadcast in such languages. (Paragraph originally printed in bold-face type, it is so reprinted here) You do not have to be a master of ingenuity to invent a number of simple and easily arranged codes which can be sent out over these—and for that matter any other broadcast station—by foreign agents who pose as entertainers. Popular songs, even ordinary music, can be arranged in such a way as to convey certain meanings."

Space limitation does not permit to quote other warnings, voiced at that time of the same order. It becomes apparently clear, however, that Japanese Fifth Columnists evidently used exactly these means, and it would not surprise me at all if the same sort of thing goes on even now. I make the strong plea that all radio broadcast stations of every sort must be watched much more closely than ever. I again most strongly urge that no broadcast station for the duration of the war should be allowed to broadcast in any foreign language. I urge the F.C.C. to take immediate steps to change this situation before more harm is done. The foreign language broadcast stations are a nuisance anyway and offend many people today while the country is at war. There should be no excuse for keeping such stations on the air now for a small foreign minority.

Immediately following our declaration of war against the Axis powers, the Federal Communications Commission withdrew the private use of all amateur frequencies for the duration of the war.

The order of the Federal Communications Commission dated December 8 states as follows:

"Whereas a state of war exists between the United States and the Imperial Japanese Government, and the withdrawal from private use of all amateur frequencies is required for the purpose of the National Defense, it is ordered that except as may hereafter be specifically authorized by the Commission, no person shall engage in any amateur radio operation in the Continental United States, its territories and possessions, and that all frequencies heretofore allocated to amateur radio stations under Part 12 of the Rules and Regulations be, and they are hereby, withdrawn from use by any person except as may hereafter be authorized

by the Commission." By order of the Federal Communications Commission, by T. J. Slowie, Secretary.

Immediately thereafter, however, hundreds of amateur radio stations were being returned to the air by the *Defense Communications Board* to furnish communications vital to the National Defense, according to the American Radio Relay League. As time goes on the Federal Communications Commission will no doubt authorize certain amateurs to operate Defense nets. As an example such networks are being authorized or planned and include the civilian defense net of Westchester County, New York; the amateur communications section of the Florida State Defense Council; a communications chain of the State Guard organization of California, sponsored by Governor Olson; and Connecticut's comprehensive state police network. It is also known that amateurs capable of performing important Defense functions are being given special Defense Communications Board (DCB) authorization upon application by Federal, State and Municipal officials.

The American Radio Relay League also reports that over 10,000 licensed radio amateur operators are already engaged in our war effort in many branches, as for instance amateurs operating aboard battleships, or in the Signal Corps, designing radiolocator equipment and particularly as radio monitoring officers for the F.C.C., instructing army pilots in radio communications and other tasks.

While RADIO-CRAFT will do its utmost to report all of the latest radio developments, it should be understood that there are many radio activities on which we can no longer report, due to self-imposed censorship. Much of this information comes under the heading of military information and as such cannot be printed by us until such time as it has become common property and is known to be in use by the enemy as well.

Readers of RADIO-CRAFT who have ideas on radio subjects which can be used for Defense or military operation may submit such ideas to the Editors of RADIO-CRAFT who will be glad to forward them to the proper authorities in charge. Only new radio ideas can of course be used, and while we have already received many such communications, the majority of them were not new, others were impractical. But, there is always the chance that someone may hit upon an idea that is worthwhile. Always remember that in all wars, the important inventions did *not* originate with the military authorities at all, but were devised by civilian experts. If any examples are needed you may refer to the first iron-clad battleship, the *Monitor*, the submarine signalling system of Reginald A. Fessenden and many others.

One of the most urgent requirements by the Navy and Air forces is the following:

At present submarines cannot be distinguished as friendly or enemy and it is practically impossible for an airplane when he sees a submarine beneath the waves, to know if it is friend or foe. In military tactics it is often necessary for airplanes to convey important information to submarines, particularly those that are submerged. So far no system that is fool-proof exists. Often at the present time the air force bombs its own submarines. It is well known that a submarine, even when submerged can send radio messages. It can also receive them if not submerged too deeply. Yet with all this no reliable method of communication has been found. The chief reason is that both submarines and airplanes are afraid to use radio for fear of having the information received by the enemy, who also listens. It should, however, be possible to devise a radio communications system between submarines and airplanes, using ultra-high radio frequencies, because such frequencies do not carry far enough to be received by the enemy. It is believed that in time a special *directional* ultra-shortwave means of communication will be evolved. It would be worthwhile if our radio enthusiasts would tackle this problem. Its solution is urgent.