

## Should There Be a Re-evaluation Of the Use of the Radio Spectrum?

FELLOW APCO MEMBERS:

The UHF-VHF television controversy is complicated by the large governmental occupancy of the spectrum which makes the resolution of the controversy impossible for all practical purposes. This situation has given rise to a conviction, which is gaining momentum in governmental and military circles alike, that there should be a broad scale review of spectrum utilization. As you know, hearings on allocations from 890 megacycles to 30,000 megacycles were completed a short time ago and preliminary statements have been requested, anticipating a hearing which will review the 25 to 890 megacycle band.

More recently, the Electronic Industries Association (formerly the Radio - Electronics - Television Manufacturers Association) has set up a committee to study the possible implementation of a plan for the exploration of the use of the entire radio spectrum, including both government and non-government frequencies. Members of Congress are also interested in a possible study of spectrum utilization. Representative William G. Bray introduced House Joint Resolution 381, which proposes "to establish a commission to investigate the utilization of the radio and television frequencies allocated to the agencies and instrumentalities of the federal government." From all this, we must conclude that the mood is established and a potent demand for a new look at spectrum assignments is in the air.

There is logic in the demand for this spectrum study. The spectrum assignment pattern is an accumulation, rather than a plan. Many of the assignments were made before we knew much about the propagation characteristics. For governmental use, blocks of frequencies were set aside at intervals across the entire usable spectrum to insure the availability of channels for future applications which might be developed with the progress of the art. The governmental blocks have been a perpetual barrier to the rational organization of any efficient plan for frequency assignments. The Federal Communications Commission exercises authority over that portion of the spectrum which remained after the governmental blocks were placed in cold storage. IRAC, or the Interdepartment Radio Advisement Committee, reporting directly to the President, administered the assignments to military and other governmental departments. The governmental assignment of channels does not follow the pattern established by the FCC.

The FCC is charged with the responsibility for the assignment of radio channels after an objective analysis of the public interest, convenience and necessity involved. In the case of the IRAC approach, governmental representatives sit down to swap and divide the swag to suit their own interest, convenience and necessity. There is no method for the disciplining of the validity of the IRAC assignments in terms of the total public welfare.

So long as there is duplicate authority, and what to all practical purposes amounts to divided authority, in the administration of radio spectrum utilization, there is little chance that spectrum assignments can be adjusted to serve the American public in an optimum fashion. It is my personal feeling that nothing less than Congressional action initiating a study with properly assigned authority and responsibility, can achieve a spectrum review which will delve into the military and governmental use, and relate such use to the most effective engineering pattern for both governmental and non-governmental applications. Many people concerned with the problem feel that the governmental departments will attempt to hold what they have, and to do this they will avoid any spectrum exploration which will require them to justify their assignments. It is certainly true that any spectrum review which does not include a review of the entire governmental channel utilization will be a fruitless exercise.

From a positive-thinking point of view, a full-scale, cooperative examination of spectrum utilization could benefit everyone concerned, in governmental and non-governmental circles alike. There is a need for a sharp examination of the potential for geographical assignments. Spectrum assignment for contiguous channel assignments in television is highly desirable. Special assignments for forward scattering are needed for both tropospheric and ionospheric transmission for the solution of extraordinary military communications problems. Some frequencies which may be preferable for governmental use or military assignments might be least desirable for some of the proposed non-governmental applications. A concentration of assignments on a broad spectrum basis may be essential for the areas involving intense military activity, while specific metropolitan areas might utilize equivalent broad spectrum assignments for non-governmental applications without seriously infringing upon the governmental needs. We know we are wasting large portions of this vital national resource, and nothing short of an objective engineering analysis of the whole problem will change the hodge-podge random confusion into an orderly pattern of efficient spectrum utilization.

Shades of RTPB and Panel 13. I shudder to contemplate the weeks and months of hard work, with frustrating mixtures of confusion and politics which must go into any spectrum exploration and allocation review. I shudder — and I wish we could avoid the turmoil — I wish it wasn't necessary — but it is necessary, and I support the idea wholeheartedly. I confess that I have a fervent hope that we can accomplish the review with a maximum of scientific objectivity and a minimum of politics and confusion.

Sincerely,



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