

Coordinator's Corner

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I've gotten a fine response to my questionnaire re the year's activities. Sorry I didn't spell out the dates, but figured it was on a fiscal year basis from July 1 to June 30 each year. Since our Annual Conference is in early August each year, the books need to be closed early enough to correlate all the data and have a satisfactory report ready for the Annual. The data we have received in reply will enable us to evaluate the work for several years back. Man, we sure have put in hours on this coordination business.

It is interesting to note that in addition to the routine coordination processing, practically every coordinator who replied shows he put in over 100 man-hours in the past year assisting others with problems. This includes everything from helping a Special Emergency Services applicant work up his letter re 30 kc plus or minus clearances to helping with inter-mod, inter-channel and even TVI problems. If we can get our paperwork really organized, we will have a valuable reference file. We are in a position not only to know who is on what channel in the LG or police service, but essentially what equipment he's using, and subsequently why we're getting inter-mod, etc. It's still plenty hard to tell a limited-

budget user that the reason he's hearing the guy 60 kc off is because his receiver just doesn't have adequate selectivity. It's not the other guy's equipment - it's his own 1948 model receiver that's causing the trouble. Who still uses 1948 receivers? Plenty of people in Public Safety Services. They've had to do that they could provide adequate monitoring and other such functions on the limited budget devoted to Communications. Basically, the rules require that the transmitters be narrow-banded. There was nothing really compulsory about receivers. If you receive adjacent-channel interference, brother, that's your problem. The transmitter meets all FCC requirements. Of course, most of our regular equipment, base and mobile, is properly narrow-banded because we now buy the "transceiver" type of installation, rather than a separate receiver and transmitter. However, many entities have utilized the old mobile receivers for monitors in fire halls, officials' homes, at the police garage, or other strategic locations where it is advantageous for the personnel to hear what's going on, but doesn't necessarily justify a full station. It's hard enough getting the comptroller to approve purchase of replacement or additional transceivers for regular units, let alone nice, new monitor receivers at the many locations where they are needed, not to mention the ones for "convenience only". I'd guess that out in the boon-docks we've got a few 80 kc systems working, but because they haven't caused any rough interference problems, nobody has bothered them.

In any event, there are still plenty of wide-band receivers in use. Some have had the discriminator and audio circuits modified for better audio recovery from the narrow-band signals, but their selectivity hasn't changed a bit. Their band-pass characteristics in some cases approach the latest, most modern TV receivers in wideness

and susceptibility to all sorts of weird responses. And they are with us for some time to come. I had a call the other day from a volunteer fireman wanting to know how to sharpen up the selectivity on a BC-603, the old 27 mc. Tank receiver with push-button channel selection. In fact, some of the hobby mags are still advertising them for sale on ye olde surplus market. Peel a few fractions of a turn or two off the coils, and boy, you can hear all kinds of police calls, fire calls, and all that jazz. Put a transistorized converter on it for 150 or 450!

Anyway, despite all kinds of coordination on the transmitters and basic base facilities, we still have these indirect problems of wideband receivers. Of course, we can't let such matters influence our coordination problems. Our coordination should be based on the notion that everybody has narrowband equipment with a square wave shaped band pass, cutting off right at the edge of the band with a ten to the x-power db attenuation, or at least on a reasonable facsimile of that kind of performance. Our newer equipment is getting closer and closer to that goal, but finances play a big part in Public Safety Communication systems. Being as we were the "first in the business" so to speak, we still have plenty of old receivers in use. A lot of the newer services came into existence in the days of quintuple-tuned IF's (with careful "stagger alignment" procedures that require super signal gens and fancy scopes to develop the band-pass) or various forms of filters to aid selectivity. Even those are not enough in many cases today, but they must be considered in the formula for the "best" frequency to recommend.

The point is that there are many economic factors as well as technical factors that influence the desires of various users for specific channels, and that the coordinator is therefore forced to consider in his analysis. And that's not mentioning any of the politics that get involved. Strange as it seems, how well the Chief or City Manager of Podunk gets

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