

FHH Telecom Law

May 2003

Should the FCC Regulate Receivers?

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When Congress first set up the FCC in 1934, it charged the new body with preventing interference in the spectrum. In those days, of course, except for a few hardy amateurs, almost the only spectrum users were AM broadcast transmitters. So that's what the FCC regulated: it assigned frequencies, restricted power and antenna height, and set minimum distances between stations on the same or nearby frequencies.

Today the interference situation is a lot more complex, but the FCC's technique has not changed much. The FCC still regulates transmitters, keeps them on assigned frequencies, limits their height and power, and keeps them apart.

Now the FCC has announced it is ready to broaden its approach and consider targeting receivers as well, as a factor in interference. The motivation is simple: bad receivers waste spectrum. Several recent FCC proceedings have seen spectrum incumbents trying to block newcomers by claiming the new services would cause interference. But in many cases, the feared interference would be due as much to the incumbents' badly designed receivers as to the new signals. In effect, some incumbents have used their own poor receivers as the basis for demanding high levels of interference protection. While permissible under present law, this stance is a major obstacle to the FCC's efforts to squeeze more use out of the spectrum.

In fairness, not all incumbents control their receivers. The broadcast industry, for example, transmits to tens of millions of radios and TVs it does not provide, and over whose design it has little say. On the other hand, a subscription service such as wireless phone or "satellite radio" generally exercises complete control over its receivers, because it pre-approves and individually activates each one it serves.

A new FCC inquiry asks for public comment on whether receivers should be subject to standards rendering them more robust in the face of interference. Despite technical consensus that better receivers could increase the number of people sharing spectrum without getting in each others' way, the proposal still faces obstacles.

The FCC hopes to make any receiver standards voluntary. But better receivers presumably will be more expensive. While they serve the social good by making the spectrum more hospitable to all, they offer little advantage to the individuals paying for them. It's like asking car-buyers each to pay more for fuel-efficient vehicles so as to improve everybody's environment. Most people won't do that voluntarily, which is why we have government-imposed fuel economy standards.

But if receiver standards likewise must be mandatory to work, that also raises a problem, because the FCC may lack the legal authority to impose them. Federal agencies like the FCC are creatures of Congress, with only the powers that Congress gives them. A 1968 statute authorizes the FCC to regulate the receivers in "home electronic equipment," which the FCC has never done -- and it is not clear the FCC can lawfully regulate any other kind. The courts traditionally give the FCC some leeway in reading its authorizing statutes, and Congress can always step in to add a few clarifying words. But it's too early to guess how the legal issues will play out.

In short, better receivers can improve use of the spectrum. Indeed, receiver standards may be long overdue. But the economics tilt against voluntary adoption, and the FCC may lack the legal clout to make standards mandatory. Receiver regulation may turn out to be a good idea whose time has not yet come.

(A version of this article appeared in the May 2003 issue of *Wireless Design & Development*.)