

Remarks of Commissioner Meredith A. Baker

Introductory Remarks: Panel on the Future of Radio Technology

SDR '10—Wireless Innovation Conference and Product Exposition
Crystal City, VA
1 December 2010

It is great to be with you this afternoon. It is great to see many old friends. And such a full room! As you may know, promoting dynamic spectrum access, and more generally policies that support the development of technologies that facilitate more innovative and efficient use of spectrum are some of my top priorities at the Commission. So, it is a particular pleasure to be here and to lend in a very small way my support to your efforts. I look forward to what Doug, Bruce, Joe, Paul and Preston have to teach us—or at least me—today.

I think anyone who engaged in retail therapy of the electronics kind—all in the spirit of gift-giving, of course—couldn't help but notice what's on everyone's gift list this year. Consumers everywhere are choosing powerful new smartphones over traditional feature phones. Gartner reports that worldwide smartphone sales grew 96 percent from the third quarter last year, and Nielsen expects smartphones to overtake feature phones in the US by 2011. Tablets that use hundreds of times more data than even the most advanced smart phones may well be the stars of this year's giving season. In fact, a recent ChangeWave Research survey found that 9 percent of holiday shoppers planned to buy an iPad in the next 90 days. These devices are likely to challenge network operations as much as they will delight everyone who gets one off their gift list.

Our current approach to spectrum reform is not in itself sufficient to help mobile operators out of this predicament. Certainly allocating additional spectrum to mobile broadband is part of the answer. We are here today to talk about the other half of that solution. There needs to be a parallel effort to encourage the deployment of new technologies and innovations that will use the spectrum as efficiently as possible.

That is why I spoke last month about what steps we can take to help jump-start 4G buildout focusing on MSS, secondary markets, service rules, and a rural action plan. 4G technologies are already filled with innovative new approaches to spectrum and network management and are poised to incorporate even more. Our energies should be focused on what steps we can take to affirmatively promote faster—both in terms of actual broadband speed and in terms of availability date—4G service nationwide.

I have also been pleased to support the Commission's recent actions that will make unoccupied spectrum in the TV bands available for unlicensed use, promote dynamic spectrum access, and facilitate testing and market trials.

First, in October, we adopted final rules for the use of the so-called TV White Spaces. While some have said that our White Spaces item didn't do enough to be meaningful, I disagree. Instead I think the White Spaces item is a significant development that paves the way for

innovation. I think the implications for the future are very important to everyone here. Numerous studies suggest that there is unused spectrum—white spaces—in all spectrum bands at any given time. A key to meeting our spectrum challenges is finding ways to use them.

The rules we adopted condition a device's use of TV White Spaces on its consultation of a geo-location database to ensure the availability of the desired spectrum. While I wish we could have gone further in the item to permit additional technical approaches, I do think we have left the door open to the introduction of the advanced sensing technologies that have brought us all together today. I hope that we will see companies move forward with the introduction of sensing technologies for “white spaces” wherever they may be.

Yesterday we took another step by adopting two items that I hope will help make the more robust opportunistic use of spectrum possible. One, a Notice of Inquiry, seeks comment on a variety of ways in which dynamic spectrum access can promote more intensive and efficient use of spectrum. It inquires into the state of development of relevant technologies, seeking, in particular, information on spectrum sensing and other dynamic spectrum sharing capabilities and techniques. More importantly, to me at least, it asks how the Commission can promote the development of these technologies, through, for example, the establishment of test beds. It also seeks comment on whether there are ways to improve our new Spectrum Dashboard and specifically whether the TV band database model could be usefully deployed in other bands.

I would like to claim precise planning is behind it, but I do think it is more than a coincidence that this NOI should be adopted while you are attending this conference. You now have a way to make your hard work a part of our record and I look forward to seeing what you send in!

The second item we adopted this week is a Notice of Proposed Rulemaking dealing with ways to streamline and expand our rules for radio experimentation and market studies. Its target areas for action include creating new opportunities for universities and researchers to use spectrum for research; creating new innovation zones that would enable research in pre-authorized areas; promoting the development of advanced medical radio devices; and facilitating market studies. The proposed rules could consolidate and streamline existing rules and remove current regulatory barriers that limit testing.

I hope these changes will make a difference and look forward to reviewing the comments as they come in and also hope we can move expeditiously to final rules.

I am tempted to say more, but know you will benefit more from hearing what Doug, Bruce, Paul, Peter and Joe have to say.

Thank you for your time and the chance to be here today.

So, over to you Doug.