## Remarks of Jonathan S. Adelstein Commissioner, Federal Communications Commission

Workshop on Cognitive Radio Technologies Office of Engineering and Technology Federal Communications Commission Washington, DC

May 19, 2003 [As prepared for delivery]

Let me welcome you again to the Workshop on Cognitive Radio Technologies. Thank you for taking the time to participate in today's discussion. I appreciate the folks in OET inviting me to help kick-off the event and the work of Jim Schlicting and Mike Marcus in organizing the workshop. While I've only been at the Commission for six months, I've been really impressed with the professionalism and expertise of the OET staff – even though Julie and Bruce couldn't help me fix the remote control on my office TV the other day! Seriously, it's been a real pleasure to work with Ed Thomas and his staff on the many key technical issues we've already addressed this year.

As I've tried to make clear, I'm a big fan of wireless services. I'm fascinated by spectrum-based technologies, which are increasingly the real drivers of innovation in telecom. Today we're exploring the amazing possibilities that cognitive radio technologies have to offer.

Use of spectrum touches our lives in a lot of ways. Whether calling for help with a flat tire, staying in touch with our family, or helping with a problem at work, spectrum is the medium we can use on the go to make our lives safer and more productive. The incredible progress we've made in wireless is also enhancing the security and prosperity of our Nation.

The cognitive radio technologies that are today's focus offer the potential for even more innovation that can spur our nation's productivity and our citizens' safety.

Of the many challenges Congress has charged the Commission with, spectrum management is a top priority. I've set out an approach for spectrum policy in what I have called a "Framework for Innovation." In dealing with spectrum, I believe the Commission has a responsibility to establish ground rules for issues such as interference and availability, but applying the rules with a light touch. In this area, fortunately, we can rely heavily on technology, with engineering and innovation driving increased performance, increased capacity, and more and better services for consumers.

New cognitive radio technologies can potentially play a key role in shaping our spectrum use in the future. These technologies can lead to the advent of smarter unlicensed devices that make greater use of spectrum than possible today – without interfering with licensed users. Cognitive radios may also provide licensees with innovative ways to use their current spectrum more efficiently, and to lease their spectrum on the secondary market. I saw some of these very

technologies demonstrated last week at the summit at NTIA, and am just amazed by their potential.

In the broader framework, cognitive radio technologies offer the promise of helping us leave the world of command-and-control behind and create an environment where a framework for innovation can leverage their potential benefits. The potential of these technologies to "do more with less" can help us make room to accommodate both more users and the newest service offerings.

Cognitive radio technologies can also help address two critical points identified in the recent Spectrum Policy Task Force Report with which I strongly agree. First is the goal of "increasing the public benefits derived from the use of radio spectrum," and, second, the concern that "increasing demand for spectrum-based services and devices are straining [our] longstanding and outmoded spectrum policies."

I commend Chairman Powell for his leadership in this area, and applaud the hard work of Dr. Paul Kolodzy, Lauren Van Wazer, and the Task Force staff for helping identify spectrum management areas ripe for reform. This follow-on workshop is an excellent example of how I think we should define and pursue our key spectrum policy goals.

With the right framework in place, we will continue to see exciting innovations increase performance and capacity. These will offer consumers more and better services, no matter where they live. The right kind of spectrum management policy promotes these developments by pushing boundaries to accommodate new technologies and services. As policy makers, we always need to consider the latest technologies in managing the spectrum. Of course, that's a big part of why we're here today.

Again, welcome to today's workshop. Please help us think through these critical public policy issues so that we remain "cognitive" of them in the future.

And thank you for joining us this morning.