### "Spectrum: The Space Odyssey"

## Remarks of William E. Kennard, Chairman Federal Communications Commission

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(As Prepared For Delivery)

#### Introduction

Thank you, Mark (Crosby), for that introduction, and for ITA's generosity in giving me this award. I am truly honored.

I am proud to accept this award. I accept it on behalf of the many people in and out of the FCC who have worked so hard to contribute to the vigorous private wireless industry we have today.

Chief among those contributors are my fellow Commissioners, and, of course, Tom Sugrue, the Chief of the Commission's Wireless Bureau Chief. Tom will be speaking to you shortly.

I also would like to introduce others from the FCC who are here and have made this award possible:

- ...Tom's deputy, Kathleen O'Brien Ham;
- ...Tom's legal assistant, Mark Rubin;
- ...D'wana Terry, Public Safety and Private Wireless Division Chief,
- ...D'wana's assistant chiefs, John Borkowski; Ramona Melson, and Herb Zeiler
- ....Scot Stone, Deputy Chief of the Private Wireless Division's Policy and Rules Branch;
- ...Gary Michaels, head of Auctions Division Legal Branch, and a principal author of the guard band manager rules;
- ... Julie Knapp, Chief of our Office of Engineering and Technology's Policy and Rules Division and
- ... Bryan Tramont, Commissioner Furchtgott-Roth's legal assistant;

These people are why I am up here getting an award.

#### The Private Wireless Industry At Work

ITA and its members have always occupied a special place in the constellation of communications services.

One reason is your sheer endurance. In one form or another, ITA has been around since 1953. In 1969, a kid with a great head of hair from the University of Maryland interned with you, and all he asked for was beer-and-pizza money.

So even at that early date, Mark Crosby had his priorities straight. In 1975, Mark became your president, and today you are a thriving organization of 4,000 members.

And he still has a great head of hair. Although I understand he may have lost a few strands from his recent trips to Wall Street to raise money for your new Guard Band Manager license.

He is the star of a new show. It is called, "So Who Wants to Spend 69 Million Dollars?"

But I understand he has been successful, and I congratulate Mark and everyone else who has worked to make this happen. And I thank you for contributing to the success of our recent auction.

When you add up the spectrum currently at work for private wireless, commercial services, and public safety, private wireless occupies less than 15% of the total.

But the private wireless industry's contribution to the wireless world far exceeds its share of the spectrum.

Few know that private wireless serves critical infrastructure industries, such as utilities, pipelines, airlines, railroads and petroleum.

I know that behind every piece of my luggage that miraculously appears on an airline conveyor belt, I can thank a private wireless licensee. And I promise I will not blame you when my luggage does not show.

The fact is that the American people owe a great debt of gratitude to the private wireless industry:

- . . . for every FedEx and UPS package that arrives on time;
- ... for every taxi that arrives in the night;
- ... for every oil rig at sea that relies on you for its only tie to land;

. . . and for light and gas and every other utility that we take for granted in our homes, but which you and I know it takes take an enormous amount of critical back-room wireless infrastructure to make them happen.

Fundamentally, your industry is all about increasing the productivity of our economy. Federal Reserve Chairman Alan Greenspan says that the fuel that powers the economic boom we have enjoyed for the last eight years is information technology.

Most people assume he means the Internet, but he means much more.

He also means the exquisitely complex web of wireless devices that your industry brings to the business of America, and which makes all of this productivity possible. It is as if the economy were riding on an invisible network of wireless devices that you have stitched together across the country . . . with some 13 million transmitters, operating with over one million FCC licenses.

All of this is packed into 15% of the spectrum, and that means private wireless users are the most complex, intensely managed of all of the spectrum services.

#### **Band Managers: The Best of Both Worlds**

Mark's new duties exemplify the dynamic changes taking place across the board in the wireless industry, particularly during my tenure as Chairman.

It is a race-for-space. Spectrum space. What I sometimes call our "space odyssey."

Of course, spectrum has always been in short supply. But never in history have we seen more intense demands on the spectrum resource.

We are in danger of suffering a "spectrum drought" in our country. And from my vantage point, everybody seems to have a different solution to this problem.

The commercial wireless industry says, that is easy: just get more spectrum from the Department of Defense.

The Department of Defense says: no problem, get more spectrum from commercial wireless.

And when the two of them get together, they both say get it from . . . guess who: you, the private wireless industry.

Spectrum auctions have helped. It is pretty clear that auctions have made it possible for us to allocate spectrum much more quickly and efficiently.

In fact, for a time the mantra at the FCC was "auction everything," "auction everything," "auction everything" . . . terrestrial, satellite, broadcasting, telephone numbers, parking spaces at the FCC's new building, face time with the Commissioners.

But others pointed out that in sectors like public safety, noncommercial broadcasting and private wireless, auctions may not make sense.

So I called together the best minds in industry, the academic community and the Commission, and we came up with a better way. One year ago, we issued a landmark blueprint for spectrum management with our policy statement on spectrum management.

Out of that process came the guard band manager concept. The idea was simple: take the best features of auctions – speed, efficiency, transparency – and tailor them to the unique needs of the private wireless industry, where private frequency coordination has served us well for years.

So that is why Mark has been spending so much time on Wall Street.

Band managers have both private and public responsibilities. Band managers can subdivide and lease spectrum to third parties without going through Commission licensing procedures for each separate transaction. That means more efficiency.

The spectrum can be put to a wide range of uses, including fixed or mobile private internal communications, and private common carriage. We do not dictate any particular business model. That means more flexibility.

Yet the public is protected, because band managers must ensure non-interference between their lessees and users on the adjacent bands, and must adhere to basic standards of equity in their leasing activities. Band mangers must resolve conflicts among users before bringing those conflicts to us. That means we do not sacrifice interference protection.

ITA took a leadership role in helping us create the band manager approach, and now it is poised to be a key player as we role out the new concept.

ITA, through its associated company, Access Spectrum, was one of the top three bidders in the September 700 MHz guard band auction, and won 19 licenses in cities with populations totaling 93 million Americans.

I commend ITA, not just for its success in the auction, but also for helping to pioneer a new spectrum management tool at the FCC.

#### We've Only Just Begun

The band manager auction is an important start. But much more must be done. As the Internet migrates from the personal computer into web-enabled wireless devices,

spectrum scarcity has emerged as a major "gating factor" in the New Economy. Some estimate that we will need as much as 300 MHz of additional spectrum to meet the bandwidth demands of the wireless web.

And make no mistake about it: all spectrum users are affected. Scarcity of spectrum for commercial wireless uses puts more pressure on the private wireless spectrum and vice versa.

So we must build on the success of our work together on the band manager concept to pioneer more innovative strategies to manage spectrum more efficiently.

Help the FCC find ways to encourage secondary markets for underused spectrum. I am convinced that we can create a secondary market in wireless bandwidth just as there is an emerging commodity market for wireline bandwidth.

Help us find ways that software defined radios can be used to manage spectrum more efficiently. They allow users to operate over wide areas of spectrum in efficient ways. Let us harness software defined radio technology to head off a spectrum drought.

And we have much work to do on refarming and other techniques to refarm existing bands and reclaim unused bands.

Help us to complete our universal licensing system so you can interact with the FCC on-line and together we can achieve my vision of a paperless FCC.

And we need to work persistently, day in and day out, to combat interference. Here we need to explore ways to improve receiver quality.

In a perfect world, market forces alone would force improvements in receiver quality. But that works only if consumers get the information they need to make informed choices. Industry guidelines on receiver quality, coupled with voluntary product labeling, would go a long way towards giving consumers the information they need.

And all the while, we must be vigilant on enforcement. With the creation of our new Enforcement Bureau, I have made enforcement a top priority at the Commission. This is vital if we are to achieve maximum spectrum efficiency.

#### Conclusion

Well, we certainly have our work cut out for us.

So I accept this award today on behalf of the entire Commission with pride and gratitude.

But I also accept it as a challenge ...

... a challenge to build on the successes of the past and find ever more creative, innovative ways to manage the spectrum resource more efficiently.

... a challenge to ensure that America remains on the cutting edge of wireless technology and spectrum management.

... a challenge to ensure that the private wireless industry continues to drive economic growth for our country and the world.

I am confident that if we work together we will meet these challenges in the future. But for now, I am going to savor this honor, because this is a day I will always cherish.

Thank you very, very much.

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