Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal Communications Commission Requests Comment on Spectrum Needs of Emergency Response Providers	)	WT Docket No. 05-157
	)	
	)	FCC 05-08
	)	

COMMENTS OF THE PROGRESS & FREEDOM FOUNDATION

Introduction

The Progress & Freedom Foundation ("PFF" or "Foundation"), a private, non-profit, non-partisan research institution established in 1993 to study the digital revolution and its implications for public policy, hereby submits these comments to the Federal Communications Commission ("FCC" or "Commission") in response to its Public Notice of March 29, 2005.[1] The Commission is gathering data in order to comply with the 2004 Intelligence Reform and Terrorism Prevention Act, which requires the Commission to assess the spectrum needs of Federal, state and local emergency response providers and report the results to Congress within a year of the Act's passage (i.e., by December 17, 2005).

The Commission is specifically seeking comment on three questions: (i) whether additional allocation in the 700 MHz band should be granted; (ii) the

[1] Public Notice FCC 05-80, WT Docket No. 05-157, released March 29, 2005. The views expressed here are the views of the author and do not necessarily reflect the views of the directors, officers or staff of the Foundation.

need for and operation of a nationwide interoperable broadband mobile communications network; and (iii) the extent to which commercial wireless providers can satisfy the needs of the emergency response providers.

Spectrum Allocation Should Be Part of a Cost-Effective Emergency-Response Strategy

Spectrum is a critical resource for the communications needs of emergency response providers, as it is for the economy generally. However, federal policy with respect to emergency-provider spectrum should not be viewed in isolation, but rather as part of an overall effort to develop an emergency response strategy that is cost-effective, taking into account all the resources needed to protect the public in emergency situations. A cost-effective strategy is, simply, one that is efficient—that yields the maximum public safety benefits for the public safety dollars spent. If our strategy is not cost-effective, it means we are sacrificing some public safety benefits that could be achieved without increasing costs, or that we could achieve the same benefits at a lower cost.

Cost-effectiveness requires that decision makers face the true opportunity cost of all necessary resources including spectrum, and have the flexibility to adjust their use of different resources accordingly. At the present time, decision makers in the public safety sector do not take into account the opportunity cost of their allocated spectrum, nor do they have flexibility as to how it is used.

As I discuss below, the best way to further the cost-effectiveness objective would be to “propertyze” the public safety spectrum. At a minimum, however, the Commission should base its decisions and its report to Congress on a sound cost-effectiveness analysis that takes into account the opportunity cost of

spectrum and its public safety benefits, as well as the costs and public safety benefits of other inputs, such as state-of-the-art communications technology that is also needed by emergency response providers.

Emergency responders already have at their disposal a lot of spectrum, which is enormously valuable. The Commission notes in its release that more than 97 MHz of spectrum is allocated in support of public safety communications, including 24 MHz in the 700 MHz band that is encumbered by the broadcasters pending resolution of the DTV transition.[2] An additional 50 MHz in the 4.9GHz band has been allocated for broadband and advanced technology applications. A flexible-use license for 10MHz of nationwide spectrum has an estimated value of about $5 billion.[3]

Given the large amount of spectrum already allocated to public safety agencies and its high opportunity cost, an extra dollar spent on other inputs, including new equipment and additional public safety personnel, is likely to yield far more in terms of improving the emergency response effort than an extra dollar's worth of spectrum. Moreover, before allocating additional scarce spectrum to public safety, we should be assured that the spectrum already allocated is being efficiently used.

Propertyzing the Public Safety Spectrum

The allocation and management of spectrum for public safety purposes is part of the broader spectrum management system in place since 1934, whereby

[2] It goes without saying that the encumbered spectrum should be freed up as rapidly as possible so that it can be utilized more productively by both the public and private sector.
[3] Thomas W. Hazlett, Coleman Bazelon, John Rutledge and Deborah Allen Hewitt, "Sending the Right Signals: Promoting Competition through Telecommunications Reform," A Report to the U.S. Chamber of Commerce, September 22, 2004, p. 69.

the FCC has assigned spectrum for specific purposes rather than general use. There is widespread agreement that this system has been inefficient and imposed hundreds of billions of dollars of costs on the economy. Most economists believe that there are enormous benefits to be achieved by "propertyzing" the spectrum and using the market to allocate spectrum rights.[4]

A market-based system of flexible-use, resalable licenses should not be restricted to private-sector uses, because it can also have major benefits in assuring efficient use of the spectrum for public safety and other public sector uses. Because of the nature of emergencies—which, fortunately, are rare—much of the public safety spectrum undoubtedly is unused most of the time. Given the value of spectrum, this is extremely costly.

Emergency response providers have neither the ability nor the incentive to use their spectrum efficiently. They have a lot of spectrum, but lack the flexibility to make arrangements for the excess capacity to be used for other purposes when it isn't needed for public safety purposes. As a result, they may well face what is for all practical purposes a zero price for their spectrum—not conducive to using it efficiently.

Giving public safety licensees expanded property rights in the licenses they already hold—i.e., permitting flexibility in use and resale—would likely be far more valuable to the licensees than a grant of additional spectrum under the current inflexible terms. It would not, however, necessarily imply that the public safety agencies would or should go out and sell their spectrum. It is more likely

[4] Lawrence J. White, "Propertyzing the Electromagnetic Spectrum: Why It's Important, And How to Begin," in Jeffrey A. Eisenach and Randolph J. May, eds., *Communications Deregulation and FCC Reform*, The Progress & Freedom Foundation and Kluwer Academic Publishers, 2001.

that the public safety agencies would explore creative new cooperative relationships with the private sector to obtain needed new technologies in exchange for granting usage rights to their excess spectrum. They could, for example, lease spectrum to customers on an “interruptible” basis, as is commonly done in the electricity sector where classes of customers agree to be interrupted during periods of scarce supply.

These arrangements would constitute a significant new revenue source, providing resources to upgrade communications equipment and perhaps fund a range of public safety activities. The public safety spectrum would be more efficiently used, and valuable spectrum would be moved into more highly valued uses in the private sector. This would also have public safety benefits. Increasing the supply, and lowering the price, of spectrum would increase adoption of wireless services, with the result that more people would be connected to the public safety system.

While a flexible license regime would enable emergency response providers to lease usage rights to their “white space,” they would obviously retain the rights to use the necessary spectrum during emergencies.

With greater flexibility, response providers might find it most efficient to lease their spectrum rights partly or even entirely and purchase communications services from commercial providers. In this regard, it should be noted that the commercial market provides nationwide interoperability to their customers routinely. There is no reason why the commercial market couldn’t easily provide the necessary degree of interoperability to emergency response providers.

Conclusion

It is critically important that our emergency response dollars be wisely spent and that we achieve the maximum public safety benefit for the buck. The Commission's report to Congress should reflect this cost-effectiveness approach rather than looking at spectrum in isolation from other public safety resources.

The Commission also should consider (and discuss in its report) the very large benefits that would be achieved by the more fundamental reform of propertyzing the spectrum in the hands of the public safety agencies. Propertyzing this spectrum would allow it to be more efficiently utilized, would provide significant new resources for the public safety community to obtain state-of-the-art technologies and for other purposes, and would enhance the overall cost-effectiveness of our public-safety efforts.

Finally, providing public safety licensees with the flexibility to lease rights to their spectrum could constitute a significant addition to the supply of flexible-use spectrum in the private sector, which would clearly have major benefits, including providing more people with connectivity to the public safety system.

This spectrum is also needed to support a whole new generation of wireless services that is on the horizon.

Respectfully submitted,

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