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The Honorable Ted Stevens  
Chairman  
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United States Senate  
522 Hart Senate Office Building  
Washington, DC 20510-0201

The Honorable Daniel Inouye  
Co-Chairman  
Committee on Commerce, Science and Transportation  
United States Senate  
722 Hart Senate Office Building  
Washington, DC 20510-1102

Dear Chairman Stevens and Co-Chairman Inouye:

Let me take this opportunity to congratulate you on S. 2686, the "Communications, Consumers' Choice, and Broadband Deployment Act of 2006." Reshaping the Nation's communications landscape is a difficult task. The complexities of this legislation are enormous and your leadership is most appreciated.

Unfortunately, one part of the legislation, Title VI, the "Wireless Innovation Networks Act," will have the unintended consequence of creating significant interference to digital television receivers. Consumer confidence in digital television reception is a key element in moving forward with the digital transition. We are concerned that the potential for interference to newly acquired digital television sets, and the government-subsidized digital-to-analog converter boxes may place this progress in jeopardy.

The purpose of Title VI is to facilitate the deployment of wireless broadband services in underserved rural areas. The television broadcast industry supports the goal of bringing broadband to those in underserved rural America. We are willing to work with the Committee to craft solutions to this problem, without endangering reception to free over-the-air digital television. There is sufficient spectrum in rural areas to facilitate the deployment of broadband services without jeopardizing the ability of television viewers to receive digital television signals.

Unfortunately, the provisions of Title VI go far beyond promoting rural broadband. As drafted, the bill would allow *any* type of unlicensed use including radio-controlled toys, cordless telephones, and wireless game controllers in all markets across

America. In many instances, these unlicensed “toy” devices are likely to significantly increase interference with television receivers. Ironically, once deployed, these same ubiquitous unlicensed “toy” devices may make it more difficult to use the spectrum for the very broadband operations sought by the legislation.

Interference to consumers’ digital television receivers is our primary concern. Unlicensed devices will be placed in the permanent core TV band, channels 2-51, that local stations will use *after* the digital transition. As a matter of physics, any device transmitting energy in the TV band has the potential to interfere with both digital television sets and the government subsidized digital-to-analog converter boxes. The key issue is whether the legislation effectively prevents such interference from occurring. Despite the best intentions, the legislation as drafted will not prevent or effectively remedy interference.

The legislation relies on the FCC’s certification process to prevent interfering devices from entering the marketplace. Unfortunately, this process is far from perfect. In point of fact, the FCC itself approves less than 10% of all equipment, with the vast amount of equipment approved by industry laboratories. ***Ironically, the legislation does not require independent laboratory testing. It does not even require field-testing.*** These critical components are discretionary under the bill.

In other contexts a significant number of the unlicensed devices certified by the FCC have been found to be non-compliant and transmitting at power levels far in excess of authorized limits. Most recently, numerous complaints have been filed with the FCC about interference caused by unlicensed radio devices previously certified by the FCC that are used in connection with satellite radio services. However, millions of these devices are already in the hands of consumers, and it is impossible to reclaim or to turn them off. There are many other similar examples of where inappropriate equipment was allowed into the market under this “rigorous” certification program. This problem merely foreshadows what will happen in the TV band.

The reality is that proponents of unlicensed devices have not undertaken the scientific work to test such unlicensed devices and show that they will not cause interference to licensed broadcast operations. American consumers and broadcasters are merely expected to take it on faith that such non-interfering devices can be built without first testing them and determining that they in fact will work. This is the first time the government will have authorized higher powered unlicensed devices to operate on frequencies already occupied by hundreds of millions of consumer devices, *i.e.*, television sets.

While proponents would have the Committee believe otherwise, in fact, ***research and development and laboratory and field-testing ought to precede the establishment of technical rules by the FCC.*** Billions of dollars were spent by the academic, broadcast, and electronics industries on the testing and research and development that went into the DTV standard *before* the FCC had rules in place for its use. Significant research by the FCC and the TV industry took place before the FCC established rules for cellular radio,

low power FM, MVDDS, and many other services. There is no reason to sidestep this deliberate, scientific approach. However, the legislation does just that -- authorizing unlicensed devices to enter the band in 270 days, and then relying upon the FCC's certification process in the hope of avoiding interference.

The leading engineering standards body in the world, the IEEE, has been pursuing the potential of using the "white spaces" for the provision of broadband services. Leading members of the electronics and communications industry, including Motorola, Thomson, Philips, Samsung, France Telecom, and ETRI, have developed a proposed standard, and the IEEE is currently evaluating and testing this standard to ensure that it will both provide adequate broadband service and not cause interference to licensed operations. This valid and sound engineering approach to developing appropriate unlicensed rules and regulations should be allowed time to do the necessary testing of this broadband technology, and should not be circumvented by allowing unproven unlicensed toys and other devices into the broadcast band in 270 days before testing is complete.

As drafted, the legislation's enforcement process is insufficient to resolve interference problems. Consumers receiving interference on their TV sets are unlikely to know the source of interference, and those consumers using unlicensed devices will not realize they are causing interference. As a result, interference will often be impossible to detect and police. In this regard, the legislation's enforcement provisions are inadequate. The following highlights some of the major problems:

- **Consumers Are Not Eligible to File Interference Complaints:** Despite the fact that interference will occur on television sets in the home, only "licensees" may file an interference complaint.
- **Impossible Enforcement Burden Placed on Incumbent Licensees:** The bill requires that all complaints be verified in the field. Unlicensed devices can continue to operate until "harmful" interference is verified in the field. In other words, licensees must identify and track down millions of interfering devices. This is an impossible task for broadcasters or any other licensees. It will require an army of engineers and resources.
- **No Identification Codes:** The legislation does not require each unlicensed device to transmit an identification code, making it impossible to track down an offending device.
- **Remote Shut Off Not Required for All Devices:** The bill requires a device to contain a "remote shut off" only if it is determined that the device will cause interference. Depending on the location of its use, any device can cause interference. However, the legislation seems to contemplate that certain devices will not need a remote shut off. In these situations interference determinations will be made after the device has entered the market. By then it's too late.

- **No Operation of First Adjacent Channels:** Operating unlicensed devices on the first adjacent channel next to an operating TV channel will cause interference to surrounding TV receivers over a wide area. The legislation does not preclude unlicensed devices from operating on these channels.

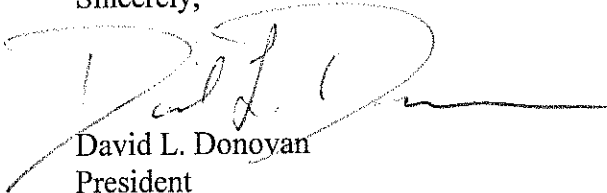
The federal government has mandated the transition from analog to digital TV. This transition has required broadcasters to spend billions of dollars converting their stations from analog to digital transmissions. Consumers will spend even more -- tens of billions of dollars on new DTV receivers. For example, if the over 100 million television households spend an average of \$500 on new DTV receivers, this amounts to an investment of over \$50 billion by consumers. This federally mandated investment must be protected from interference from unproven unlicensed technology and should not be jeopardized so that a few large companies can sell chips to be used in toys and games.

Ensuring that the United States is a global leader in the provision of broadband services is a worthy goal. We believe, this goal can be accomplished, especially in rural markets, without causing interference to new digital television receivers and converter boxes. Unfortunately, the legislation goes far beyond promoting rural broadband. It will lead to interference in all markets. Jeopardizing the important benefits of a successful DTV transition to permit unlicensed toys and games is not an appropriate public interest trade off.

I respectfully request that you consider making significant changes to the legislation as the bill moves forward. Significant, additional real world testing is required before unlicensed operations should be authorized to enter the TV band. Further, given the lack of research activity by the proponents of these devices, broadcasters do not believe that it is unreasonable to request waiting until after the DTV channel allotment process is completed by the FCC, and the actual frequency assignments that must be protected are known.

Our desire is to find a solution that will bring broadband to underserved Americans while ensuring that consumers' and broadcasters' investments in the DTV transition are protected. We look forward to working with you and members of the Committee. Together we can find solutions to facilitate rural broadband deployment, while proceeding with the engineering work necessary to avoid interfering with consumers' digital television receivers.

Sincerely,



David L. Donoyan  
President

CC: Members of the Senate Committee on Commerce, Science and Transportation