

Coalition for Spectrum Integrity

April 8, 2005

The Honorable Ted Stevens
Chairman
Senate Committee on Commerce, Science and Transportation
508 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Stevens:

The undersigned trade associations, organizations, businesses, manufacturers, and public safety organizations are writing to you to express our deep concern over an extremely troubling proposal by the Federal Communications Commission that would permit the operation of higher powered unlicensed devices in the band of frequencies used for television broadcasting. We have formed the Coalition for Spectrum Integrity ("COSI") in response to the threat that the FCC's proposal poses to the viewing public.

COSI members represent communications industries that have invested billions of dollars in this band. Also, billions of dollars in the American economy are generated by COSI members. The FCC's proposal places this investment, and the benefits that flow to the public, in grave jeopardy. In our view, authorizing unlicensed devices by the Commission based on the record compiled to date would be precipitous, and would result in adverse consequences that would far outweigh any potential benefits from permitting unlicensed interfering devices in these frequencies.

In order to avoid spectrum chaos, Congress wisely enacted the Communications Act of 1934. Its fundamental precept is found in Section 301:

"It is the purpose of this Act, ...to maintain the control of the United States over all the channels of radio transmission; and to provide for the use of such channels, but not the ownership thereof, by persons for limited periods of time, under licenses granted by Federal authority...."

No person shall use or operate any apparatus for the transmission of energy or communications or signals by radio...except under and in accordance with this Act and *with a license* in that behalf granted under the provision of this Act."
(Emphasis supplied.)

The FCC's proposal tears at the basic fabric of the Act. This proposal is much more than the simple authorization of unlicensed low powered, short-range electronic

devices, such as a garage door opener, microwave oven or a TV remote “clicker.” To the contrary, the FCC’s proposal contemplates the establishment of an entirely new communications system, with unlicensed radio transmissions supposedly reaching 10 to 35 miles. There will be no federal licensing or control. The entire policy rests on the simple belief that this unlicensed equipment can be manufactured so as not to cause interference, and that these manufacturers and unlicensed services will have sufficient incentives to avoid interfering with other communications systems. Both of these assumptions have never been tested in the real world.

Without so much as a single Congressional hearing, the proposal alters 70 years of federal spectrum management and ignores the Congressional requirement to license spectrum users. It is based on a regulatory model that has been employed for short-range products such as garage door openers, and now seeks to extend that model to full powered communications systems that are claimed to cover large, highly populated geographic areas. The consequences of the FCC’s proposal may be devastating to the American public. Some major concerns are as follows.

Interference to 73 million television sets: According to an NAB study, there are more than 73 million television sets in the United States that rely exclusively on the reception of over-the-air signals. A recent laboratory study found that under the power levels proposed in the FCC’s rules, an unlicensed portable device located within 75 feet of a television set could overload a television tuner, causing interference to the reception of all channels. This means that consumers living in townhomes or apartments could lose their over-the-air TV service as a result of the interference received from their neighbors.

Impairing the digital transition: Interference to newly purchased DTV receivers may cause consumers to return their new TV sets. Undermining consumer acceptance of digital television will delay the digital transition, and prevent recovery of broadcast spectrum on TV channels 52-69.

Interference with public safety communications: Public safety currently shares TV channels 14-20 with television broadcasters in major markets. The FCC proposes to permit unlicensed devices on these channels in medium and small markets, creating interference problems in adjacent overlapping areas.

Undermining newsgathering and sports programming production: Local television stations, broadcast networks, cable news networks, sports networks, sports leagues, and video production companies depend on wireless microphones and wireless video assist devices. The channels used by wireless microphones are very congested, especially in major markets. The FCC’s proposal permits unlicensed devices on these same channels, making wireless microphones and wireless video assist devices unreliable. It will become increasingly difficult, if not impossible, to produce live news and sporting events.

Interference with theaters, churches and school events: Theaters and churches often use wireless microphones in their performances and services, respectively. Unlicensed devices may very well interfere with these microphones.

Permanently chills investment and impairs the value of the spectrum for the public: The FCC proposes to give unlicensed services access to this prime spectrum, free of charge, for commercial services. Some have proposed giving free access for unlicensed operations to Channels 52 to 69, even though some of these channels have already been auctioned for the deployment of new wireless services upon conclusion of the DTV transition. Such a give-away of prime licensed spectrum, particularly the channels within the Lower 700 MHz band that have already been auctioned, would be fundamentally unfair and would chill investment and reduce the value of licensed spectrum. Businesses have already spent millions of dollars to buy licenses for the Lower 700 MHz spectrum based on the existing FCC rules, which do not allow unlicensed operations on their spectrum and in the adjoining TV bands. These businesses are investing large sums of money to launch innovative services on their frequencies. The FCC should not change its rules now, years after the auctions, and give away free access to the adjacent TV spectrum, as proposed by the FCC, or free access to the same Lower 700 MHz licensed spectrum that the FCC has already auctioned, as others have proposed. Moreover, in future auctions, bidders may well bid far less if there is a real prospect that, after the auction, the government could force them to share the spectrum with millions of unlicensed devices, whose manufacturers obtained access to the spectrum from the government for free. Finally, once unlicensed devices are permitted into a licensed band, there is no way to remove them in order to cure the interference so that the licensed services can continue unimpaired or to accommodate future, more advanced licensed services.

Interference to cable service: Introducing unlicensed base stations into the broadcast band may have an adverse impact on the reception of broadcast television signals at a cable headend. As a result, subscribers to that cable system may be unable to see certain broadcast channels and programs. In addition, portable unlicensed devices may interfere with “in-home” cable wiring and connections. All of the factors are likely to confuse consumers, who will not know who or what is causing the interference they are suffering, much less how to stop it.

Proponents of unlicensed devices argue that new advanced technology ensures there will be no interference. This simply has not been the case in the real world. A recent example of interference to military radar underscores the dangers posed by unlicensed devices operating in licensed spectrum bands. On January 27, 2005, United States Air Force officials reported that wireless Internet connections in the 5 GHz band were interfering with military radar at the Eglin Air Force Base in Florida.¹ According to Master Sgt. Dawn Hart, “The sources of interference show up as targets on tracking

¹ See, e.g., Associated Press, *High Speed Net, Wi-Fi Interfering with Military Radar*, USA Today (Jan. 28, 2005).

radars because of their strong signals.”² Officials from the county, which is home to the base, mistakenly (but understandably) opined: “There are evidently people who are firing up [wireless Internet] hotspots without [FCC] licensing.”³ In fact, those Wi-Fi hotspots are in the *unlicensed* U-NII band. It is unclear when, or even if, officials will be able to locate and remedy the unlicensed sources of harmful interference to the radar tests. Indeed, the FCC recently announced that the federal government and the unlicensed device manufacturers have found it so difficult to solve these interference problems that the FCC cannot yet adopt measurement procedures to authorize unlicensed devices to operate in 255 MHz of spectrum in the 5 GHz band reallocated for unlicensed operations in November 2003.⁴ Yet, the parties who favor allowing unlicensed devices in the TV bands seek to rely on many of the very same techniques that are not working now in the 5 GHz bands to mitigate interference in the TV bands.

The FCC’s response to a similar situation can be found in the attached *Public Notice*.⁵ The *Public Notice* indicates there is no effective way to prevent interference from taking place: “It is not possible to predict in advance which specific users or locations near military bases may experience interference, because of the variety of technical characteristics of garage door controls and configuration of the mobile radio systems.”

Our concern is magnified by the fact that the FCC is proposing that television receivers and unlicensed devices share the same frequencies.⁶ Unlicensed interfering devices are portable, and there won’t be any database of licensees who can be contacted by the Commission once television viewers begin to complain that their sets periodically go dark. The same is true for interference from unlicensed devices with police radios and wireless microphones. There is no practical way to control their use once interference commences. Moreover, it is impossible for the government to confiscate these unlicensed, interfering devices once they are in the hands of the public.

Permitting such devices in the broadcast television band, at this time, is premature. It will undermine the digital transition. Significantly more work, including real world testing, needs to be accomplished before such devices can be authorized to share spectrum. The services provided to the American public by the undersigned organizations are too important to be subject to potential significant interference.

² Associated Press, *High Speed, Wi-Fi Internet Messing with Eglin AFB Radar*, South Florida Sun-Sentinel (Jan. 28, 2005).

³ *Id.*

⁴ *Order*, Revision of Parts 2 and 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) devices in the 5 GHz Band, FCC 05-43, February 23, 2005 at Pg. 4.

⁵ *Public Notice*, Consumers May Experience Interference to Their Garage Door Opener Controls Near Military Bases, DA 05-424, February 15, 2005.

⁶ Under FCC rules, consumers have a *right* to install and operate antennas up to one meter in length for the operation of unlicensed transmitting or receiving equipment. See *Public Notice*, Commission Staff Clarifies FCC’s Role Regarding Radio Interference Matters, DA 04-1844, June 24, 2004.

Sincerely,

David L. Donovan
President
Association for Maximum Service Television, Inc.

Participating Organizations

Trade Associations

**Association for Maximum Service
Television, Inc.**
**Association of Public Television
Stations**
Community Broadcasters Association
National Translator Association
**National Systems Contractors
Association (NSCA)**
Society of Broadcast Engineers, Inc.
SW Colorado TV Translator Assn.

Individual Companies

QUALCOMM Incorporated

Total RF, Inc

The ABC Television Network
The ABC Owned Television Stations
CBS Television Network
Fox Television Stations, Inc.
**NBC Universal and NBC Telemundo
License Co.**
UPN Television Network
Viacom Television Stations Group

Belo Corp.
Capitol Broadcasting Co., Inc.
Clear Channel Communications, Inc.
Cox Broadcasting
Emmis Communications
Entravision Holdings, LLC
Fisher Broadcasting Company
Gannett Broadcasting
Hearst-Argyle Television, Inc.
Hubbard Broadcasting, Inc.
Liberty Corporation
LIN Television, Inc.
Morgan Murphy Stations
Mid-State Television, Inc.
WMFD-TV DT, Mansfield, OH
Morris Network of Mississippi, Inc.
WXXV-TV DT, Gulfport, MS
**WCBI-TV, LLC, WCBI-TV DT
Columbus, MS**
Morris Network, Inc.
WMGT-TV DT, Macon, GA
Guenter Marksteiner
WHDT-DT, Stuart, FL
New York Times Broadcast Group
Pappas Telecasting Companies
Paxson Communications Corporation
Sarkes Tarzian, Inc.
Tribune Television, Inc.

Hammett & Edison, Inc.



PUBLIC NOTICE

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DA 05-424
February 15, 2005

Consumers May Experience Interference To Their Garage Door Opener Controls Near Military Bases

Consumers near certain military installations have recently experienced interference to their garage door opener controls that may reduce the operating distance or cause the device to stop operating. This public notice is issued to explain the cause of the interference and the steps being taken to alleviate this problem. The vast majority of consumers will not experience any interference to their garage door opener controls.

Garage door openers operate, legally under Part 15 of the Commission's rules, at very low power on an "unlicensed basis," and have been permitted to operate on frequencies that have been reserved for the federal government since WWII for air/ground communications systems, but received limited use by the government for many years. As unlicensed devices, there is no right to protection from interference. However, because of this limited use, the risk of interference was similarly limited, so manufacturers of garage door openers chose these frequencies for their transmit and receive devices. In response to the increased needs of homeland security, the Department of Defense now must make more use of these frequencies to deploy new mobile radio systems on and around certain military bases.

Some consumers near these bases may experience interference to their garage door openers that can reduce operating range or cause the remote control to cease functioning. This interference will not cause the garage doors to open or close on their own. Inside the garage, wall-mounted push buttons will not be affected by any interference that might occur, and will continue to operate normally.

It is not possible to predict in advance which specific users or locations near military bases may experience interference, because of the variety of technical characteristics of garage door controls and configuration of the mobile radio systems. The Department of Defense is working with the National Telecommunications and Information Administration to make reasonable effort consistent with their mission requirements, and the Federal Communications Commission is working with the garage door opener industry to make every effort on their part, to minimize the impact to consumers.

For security reasons, the Department of Defense cannot make information broadly available in advance as to the deployment of the new mobile radio systems. Individual base commanders may make some information available to their local communities when appropriate.

Garage door opener manufacturers stand ready to help consumers resolve any interference to their systems, including, in some cases, making available for purchase, a replacement transmitter and receiver that operate on a different frequency that is not used by the new mobile radio systems.

Consumers experiencing interference should contact the manufacturer of the door opener control or their local installer for information on available immediate solutions.

For further information on this Public Notice, please contact the FCC Call Center at 1-888-CALL-FCC (1-888-225-5322).