

**Before the
Federal Communications Commission
Washington, D. C. 20554**

In the Matter of)
)
Establishment of an Interference Temperature)
Metric to Quantify and Manage Interference and) ET Docket No. 03-237
to Expand Available Unlicensed Operations in)
Certain Fixed, Mobile and Satellite Frequency)
Bands)

To: The Commission

Comments of the Central Station Alarm Association

The Central Station Alarm Association, and the related Alarm Industry Communications Committee (collectively "CSAA"), by their attorneys, hereby submit comments in the Commission's Notice of Inquiry and Notice of Proposed Rulemaking in ET Docket No. 03-237, a proposal to better control harmful interference and expand unlicensed operations in various frequency bands.

Background

The Central Station Alarm Association is a trade association which represents companies providing central station electrical protection services that are certified by the Underwriters Laboratories ("UL"),¹ Factory Mutual, and similar risk-rating agencies. The Commission recognizes CSAA as a frequency coordinator for the private land mobile frequencies available under Part 90 of the Commission's Rules.

Over the past 20 years, the public has increasingly relied on private security services for fire, burglary and medical alert protection as the services of local law enforcement agencies' resources have become increasingly strained. The Commission recognized this as early as the 1960s when it carved out a small allocation of five channel pairs for central station alarm operations in the 450-470 MHz band within urbanized areas of 200,000 or more population, and

¹ Services certified by Underwriters Laboratories are permitted to use the label "UL-listed."

made certain of those frequency pairs available for use on a nationwide basis. Frequency Allocations – 450 – 470 Mc/s Band, *Second Report and Order*, 11 FCC 2d 648, 653 (1968). Since that time, local governments have had difficulties in finding sufficient funding to provide the staffing and equipment needed for police, fire and emergency medical services. As a result, many communities do not have enough personnel on the streets to respond to emergencies or to engage in public education activities to pro-actively train citizens in crime prevention, fire prevention and skills necessary to be a first responder to a medical emergency such as a heart attack or choking. Radios used in connection with central station alarm monitoring activities are low power operations that are used to relay burglar, fire and medical emergency alarm signals, all of which are critical life-safety uses of this spectrum.

Central station alarm operations protect a wide range of sensitive facilities from fire, burglaries, sabotage and other emergencies, including government offices, power plants, hospitals, dam and water authorities, pharmaceutical plants, chemical plants, banks, schools/universities, and other critical facilities that could become the target of terrorist attacks as well as other life threatening events. In addition to these commercial and governmental applications, central station alarm operations are protecting an increasing number of residential properties from burglary and fire. Citizens can even carry with them a wireless “panic button” that will summon the police on a priority basis in the event of an emergency. Similarly, alarm companies provide a medical alert service for obtaining an ambulance in the event of a medical emergency.

Central station alarm companies use their radios to relay information about dangerous situations to police, fire and rescue agencies. Because alarm companies provide this valuable link to 911 in the event of an emergency, they should be viewed as an important component of our public safety infrastructure. Central station operators, under the joint program of the Defense Security Service (“DSS”)² and UL, provide protection to DOD contractors.³ Alarm company employees must pass a rigorous screening program by the DSS in order to obtain the required “secret” security clearance, since classified documents and equipment are being protected. Protection of these public facilities from fire and intruders has always been critical, but in the

² DSS is part of the U.S. Department of Defense (“DOD”).

³ See UL Standard 2050 – National Industrial Security Systems for the Protection of Classified Material.

wake of the events of September 11, 2001, it is vital that these facilities be protected from terrorist attack as well. The availability of radio channels for sending these safety-related alarm signals is critical, since radio transmitters cannot be sabotaged as easily as telephone lines. Similarly, most high-risk commercial properties and many residential properties are protected by both telephone line and radio transmission of alarm signals. In this way, if one mode fails, the signal can still reach the central station via the remaining mode of communication. Indeed, many insurance companies require high-risk commercial applications, such as banks and jewelry stores, to have the ability to transmit alarm signals via both telephone and radio before they will insure the property or business.⁴ The availability of such channels for protection of homes and businesses is vital as well.

II. Comments

CSAA commends the Commission's initiative in exploring methods to increase the use of the spectrum for everyone. However, CSAA believes that the interference temperature concept should not be applied to existing spectrum used for low power operations, and in particular spectrum used for alarm signalling.

Central station alarm companies use various devices to alert the central station about unsafe conditions. First, many installations use numerous, low power, unlicensed devices in the 300-500 MHz range to transmit a signal from a sensor attached to a door or window (or built into a panic button carried by a person) to a central receiver within protected premises. These devices operate under the Commission's Part 15 regulations for unlicensed devices using extremely low signal levels and transmit such information as the presence of a burglar or other intruder, a smoke detector alarm within a house or business, or the occurrence of a medical emergency. These signals may then be relayed from the protected premises to the central station alarm monitoring center using a higher power (although still only 2 watt output) licensed transmitter on UHF frequencies reserved for central station alarm operations. Some protected premises use a dial-up telephone circuit for this second function. Premises requiring the highest level of protection often use both methods to ensure that the signal will go through. In many instances,

⁴ In the wake of the passage of the Terrorism Risk Insurance Act of 2002, H.R. 3210, 107th Cong (2002) (enacted), it will be important for potential terrorism targets to be able to provide such redundant alarm signaling capability.

this redundancy is required by insurance companies.

CSAA is concerned that the Commission's proposal will result in raising the ambient noise floor in the 300-500 MHz range, which would decrease the reliability of these very low power devices and prevent alarm signals from getting through. While the Commission is asking for comments on possibly increasing permissible power levels on unlicensed devices, CSAA believes that an increase in the noise floor by expansion of low powered devices in the 300-500 MHz band may negate any beneficial effect of doing so.

CSAA notes that the Commission has already proposed and/or adopted rules that would expand the spectrum that unlicensed devices may use. See, for example, the recent FCC rules adopted for ultra wideband technology. Rather than allowing unlicensed devices to operate at higher power levels throughout the spectrum, CSAA believes that the current restrictions on low power devices on existing radio spectrum should remain in place and that any increased power levels for unlicensed devices should be allowed only in the new frequency bands that the Commission has adopted or proposed specifically for unlicensed low power operations. In this regard, CSAA is also concerned about interference to the vital alarm signals relayed to central stations by the *licensed* frequencies allocated for alarm monitoring purposes. Part 15 devices that do not function correctly could cause interference that would block life-safety signals from getting through to the central station. Likewise, if the "interference temperature" (an experimental concept at this time) is incorrectly established, interference could result. Under either scenario, it would be impossible to track down the source of the interference, much less force it to cease, if the source is a device that can be purchased without a license at any consumer electronics store, and used by unsophisticated operators without restriction.

CSAA is also concerned about the Commission's proposal that would block a transmitter from going on the air if the frequency on which it transmits is already at a pre-established maximum level or if the transmitter would cause the channel to exceed a pre-established level. CSAA understand that such a requirement may help to limit harmful interference. Nevertheless, CSAA believes that this provision is inappropriate for safety-related communications, including the frequencies used by CSAA for sending alarm signals. It is critical that signals involving fire, burglar and emergency medical conditions be sent without delay. Delays in sending alarm signals, particularly emergency medical alerts, may have serious consequences.

Finally, CSAA is concerned about the cost of added circuitry that would be required to monitor ambient signal levels before transmitting. Many central station alarm companies have hundreds and even thousands of transmitters installed at the various customer premises they monitor. Alarm companies endeavor to provide a reliable alarm transmitter to their customers at the lowest possible cost. CSAA is concerned that requiring its members to use transmitters that include this monitoring function may cause customers that need alarm protection to not install such devices because of their increased cost.

Accordingly, CSAA requests the Commission not to apply the interference temperature proposals to existing spectrum used for alarm signalling, including both licensed and unlicensed spectrum that is currently available.

Respectfully Submitted,

**CENTRAL STATION ALARM ASSOCIATION
ALARM INDUSTRY COMMUNICATIONS COMMITTEE**

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