



The Honorable Michael K. Powell
Chairman, Federal Communications Commission
445 12th Street, N.W.
Washington, D.C. 20554

Re: Petition for Reconsideration
ET Docket No. 98-153; FCC 02-48
Final Rule on Ultra-Wideband Transmission Systems

June 13, 2002

Dear Chairman Powell,

The National Utility Contractors Association (NUCA) represents 43 groups of local underground utility construction contractors and suppliers throughout the United States. NUCA's nearly 2,000 members provide the materials and manpower necessary to build and maintain our nation's network of gas pipeline systems as well as sewer, water, telecommunications, and other underground utility systems. NUCA is concerned with the Federal Communications Commission's (FCC) final rule (67 FR 34852) regarding Ultra-Wideband (UWB) technologies and its effect on utility locating—an imperative part of the underground damage prevention process.

Utility contractors, like all excavators, have a great responsibility to do their part to protect the underground infrastructure. However, damage prevention is a shared responsibility among all stakeholders, including utility owners and operators, and utility locators. This rule will significantly hamper the development of ground penetrating radar (GPR) technologies that enhance their efforts to locate underground facilities.

NUCA is very active in national efforts to reduce damages to underground facilities during construction activity, specifically through our work with the Common Ground Alliance (CGA). Resulting from the *Common Ground Study of One Call Systems and Damage Prevention Best Practices*, the CGA has become the largest non-profit organization dedicated to promoting shared responsibility in damage prevention. Representing more than 800

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individuals representing 15 stakeholder groups and over 120 member organizations, the CGA offers an open forum of all interested stakeholders to discuss the most effective ways to protect the underground infrastructure during excavation activity.

In a letter on April 16, 2001, the CGA objected to FCC's Notice of Proposed Rulemaking (FCC 00-163) on this issue. NUCA agreed with the CGA's statements, which included the following:

“The most promising geophysical systems for improving the construction industry's ability to map underground utilities are ground penetrating radar systems. These systems require the use of a UWB energy spectrum in order to penetrate the soil and have the resolution to map the various sizes of utilities. Forcing these systems to utilize much lower emission amplitudes or other detuning procedures may well render them useless for the purpose of damage prevention.”

The development of GPR systems is widely considered to be one of the most promising technologies currently emerging. GPR systems offer the potential for detection of plastic or other non-metallic objects buried in the ground. In fact, the *Common Ground Study*, which identified and validated existing best practices performed in connection with preventing damage to underground facilities, states that GPR technology provides “unique capabilities for locating non-metallic facilities,” and “is also useful for detecting unknown or abandoned facilities” (*Common Ground*, page 184). The study adds that “higher frequencies, or large bandwidths, would provide higher resolutions” that would enhance the effectiveness of GPR.

Any action to limit UWB frequency as is currently applied to GPR Systems will have negative consequences in collective efforts to prevent utility damages, including the limitation of GPR technological advancements that come as a result of UWB usage in the damage prevention industry. Because GPR systems must operate at varying frequencies in order to detect and obtain accurate images of different buried facilities, the FCC's new standard will inevitably obstruct the effectiveness of GPR systems.

The development of this rule started with concerns that UWB emissions could be transmitted into television and broadcast bands and into restricted frequency bands. Although this was an appropriate issue to investigate, there is no specific or scientific data that supports the justification to limit GPR frequencies.

In fact, the House Energy and Commerce Committee held a hearing regarding this issue on June 5, 2002. At the hearing, committee chairman W.J. “Billy” Tauzin questioned the FCC’s push to restrict UWB technologies. Tauzin said he will watch this issue closely while “the FCC will conduct its own tests, and conduct them on real devices, not by formulating hypothetical models. I hope, during the next six to twelve months, the FCC is able to conduct enough real-world testing so that we have solid, real-world evidence as to whether ultra-wideband creates harmful interference in the restricted bands.”

NUCA understands that use of GPR systems “operated by law enforcement, fire and emergency rescue organizations, by scientific research institutes, by commercial mining companies, or by construction companies” will be exempt from these restrictions. However, underground facility owners and operators and the utility locators that work for them must not face restrictions on GPR systems. NUCA discussed the importance of GPR with FCC staff, and was assured that parties using GPR systems would fall under the “construction company” exemption. However, NUCA respectfully requests that the FCC clarify the language in the rule to reflect this position. State-of-the-art GPR systems are quickly becoming an integral part of the damage prevention process—federal agencies should embrace GPR development, not obstruct it.

Regards,

A handwritten signature in black ink that reads "Thomas J. Henkels". The signature is written in a cursive, flowing style.

Thomas J. Henkels
NUCA President