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03/26/2002 08 16:13 PM

Record Type: Record

To: John Morrall@EOP, radar@world.std.com

cc:

Subject: Comments Regarding Federal Regulations Including Federal Regulations Affecting Small Business

I am a geophysicist, and my small (WBE/DBE-certified) company, RSI provides services that are very useful to many people in construction, infrastructure, engineering, and environmental businesses. These services include:

- 1) Utility Detection
- 2) Conduit Detection
- 3) Void detection below asphalt roadways and airport runways, bride decks, tunnel lines, etc.
- 4) Pavement/Bridge Deterioration Surveys (to find areas where bridges are falling apart, and measure thicknesses of pavements)
- 5) Law Enforcement and Fire & Rescue (finding burials, excavations, locating communication lines, etc.)
- 6) Environmental surveys (locating buried drums, tanks, landfill boundaries, contaminants migration plumes, etc.)

and much more...

In the next few days, the FCC will release a First Report and Order (98-153) regarding the regulation of ground penetrating radar (GPR) and other ultrawide band (UWB) devices. GPR is a downward-directional tool, and in the bandwidths the FCC is going to ban, GPR obtains maybe 18 inches of signal penetration. (The antennas are shielded on the top, so the energy goes into the ground, and not into the air, protecting the operator.) GPR does not interfere with other GPS and wireless devices.

The FCC wants to have a complete ban of antennas from 960 MHz to 3.1 GHz; this would completely eliminate our ability to map pavement thicknesses, deterioration in bridges, locate rebar, and conduits within slabs, and would pose a safety hazard for the contractors and public using our services to prevent electrocution or from having a bridge fall down.

The FCC also wants to restrict who is "licensable" at frequencies below 960 MHz. GPR operation would be restricted to "law enforcement, fire and rescue personnel, scientific research institutes, and construction and mining companies."

Strangely enough, geophysicists, geoscientists, and engineers, all of whom provide GPR services, were not mentioned in the list. I should also point out that my company specifically, and GPR service providers

in general, provide services to the agencies and industry mentioned above. They use our services because WE have the expertise, and their people generally don't understand the GPR technology, or they don't want to invest in it, or both.

These regulations will also close down GPR signal manufacturers, so even if my company manages to survive doing work at the lower frequencies, there will no longer be anyone to service my equipment (or purchase new equipment) when it breaks down. The FCC is using the "Part 90" provision, which states that UWB generators/manufacturers must be at least 80% U.S. owned, and individuals who are licensable are U.S. Citizens. Between Geophysical Surveys Systems, Inc. (GSSI), Sensors and Software, and Mala, these vendors make 98% of world's radar systems. GSSI, the world's leading manufacturer, is New Hampshire based; they got started by a D.O.D. grant (to find tunnels in the DMZ), and is a vital part of New Hampshire's economy. It just so happens that the Japanese bought them out a few years ago, but the company is U.S. based, with almost all U.S. Citizens.

Over the last 2 years, my business provided environmental services (detecting Underground Storage Tanks -- USTs, and utilities) to NYC Fire and Police Stations. Our General Contractor for the project, Raytheon Infrastructure, was blown up in Tower Two on 9/11. My company survived that devastation. Now, the FCC will do its part to finish us off.

I urge you, these are BAD REGULATIONS. The FCC is trying to "broad-brush" the problem of UWB interference, by banning all UWB devices, including GPR. The FCC and the wireless Companies have already acknowledged that GPR operates below "Part 15" levels, and won't interfere, but in their initial cut, they are including GPR in the regulations. Their plan is to revisit the regulations in 6 months. However, if the FCC waits 6 months, the damage will have already been done. Most GPR service providers are 2-4 person companies, like mine. We won't be here in 6 months if we go by FCC regulations. If these regulations go into effect, the FCC will force good citizens to either break the law or close down shop.

I urge you to get involved, These regulations will devastate small businesses across the U.S., severely impact several government agencies, and threaten public safety.

Thank you for your time and consideration.

Sincerely,

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President

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