

Before the  
**Federal Communications Commission**  
Washington DC 20554

In the Matter of )  
 )  
Revision of Part 15 of the Commission's Rules ) ET Docket 98-153  
Regarding Ultra-Wideband Transmission )  
Systems )

**MOTION FOR INTERIM STAY OF ENFORCEMENT  
OF THE  
GROUND PENETRATING RADAR INDUSTRY COALITION**

Mitchell Lazarus  
FLETCHER, HEALD & HILDRETH, P.L.C.  
1300 North 17th Street, 11th Floor  
Arlington, VA 22209  
703-812-0440  
Counsel for the Ground Penetrating  
Radar Industry Coalition

June 17, 2002

**TABLE OF CONTENTS**

A. Summary ..... 1

B. Certain GPR Rules Were Adopted Unlawfully. .... 2

    1. *Adoption without notice and comment* ..... 3

    2. *Adoption without supporting evidence in the record* ..... 3

C. The Challenged Rules are Contrary to Sound Policy and the Public Interest ..... 4

D. The Commission Should Stay Enforcement of the Challenged Provisions and Permit GPR Manufacture and Operation at the Part 15 General Limits Pending Reconsideration. .... 6

    (1) *Likelihood of prevailing on the merits* ..... 7

    (2) *Irreparable harm in the absence of a stay* ..... 7

    (3) *No harm to other parties* ..... 8

    (4) *Public interest in a stay* ..... 8

CONCLUSION ..... 8

Appendix A -- Examples of GPR Applications

Before the  
**Federal Communications Commission**  
Washington DC 20554

In the Matter of )  
 )  
Revision of Part 15 of the Commission’s Rules ) ET Docket 98-153  
Regarding Ultra-Wideband Transmission )  
Systems )

**MOTION FOR INTERIM STAY OF ENFORCEMENT  
OF THE  
GROUND PENETRATING RADAR INDUSTRY COALITION**

The Ground Penetrating Radar Industry Coalition (GPRIC) hereby files this Motion for Interim Stay of Enforcement in the above-captioned docket. The GPRIC consists of Geophysical Survey Systems, Inc., Mala Geoscience, Inc., and Sensors & Software, Inc. These companies account for over 95 percent of the ground penetrating radar units sold in the United States.

**A. Summary**

Today, in a separate pleading, GPRIC seeks reconsideration of four rules on the ground that they were adopted in contravention of the Administrative Procedure Act (APA). The challenged rules are a limitation on GPR operation to certain categories of users; a requirement for prior coordination of GPR operation; and two rules that stringently limit emissions from GPRs.<sup>1</sup>

The eligibility and coordination rules were adopted without any of the notice and comment procedures required by the APA. All four rules were adopted without any support in the record.

Moreover, these rules are contrary to sound policy and the public interest. The APA procedures are intended to promote informed regulation. An agency that fails to abide by them

---

<sup>1</sup> 47 C.F.R. Secs. 15.509(a), 15.509(b)(1), 15.509(d), and 15.525.

risks promulgating rules that are overly burdensome, that inadequately accomplish their purpose, or both. This proceeding is a case in point. The Commission is attempting to resolve interference from GPRs, a problem that does not exist, and to do so has adopted measures whose unintended consequences threaten to block safety-critical applications and ultimately shut down a valuable industry.

The Commission should announce that it will stay enforcement of the challenged provisions and permit GPR manufacture and operation at the Part 15 general limits pending reconsideration.

This Motion easily meets each of the Commission's four criteria for a stay: likelihood of prevailing on the merits; irreparable harm if the stay is not granted; no harm to other parties from a stay; and public interest in the stay.

To eliminate any possible doubts concerning the public interest, GPRIC exempts from this request the enforcement of specific eligibility and coordination rules.

**B. Certain GPR Rules Were Adopted Unlawfully.**

On this date, GPRIC is filing a Petition for Partial Reconsideration of the First Report and Order in this docket.<sup>2</sup> That Petition shows that certain of the Commission's Rules applicable to ground penetrating radars (GPRs) were adopted unlawfully, in contravention of the Administrative Procedure Act (APA):

Section 15.509(a) (requiring all of a GPR's "UWB bandwidth" to lie below 960 MHz) was adopted without any support in the record, and further yields the irrational result of *disqualifying* certain devices having far lower interference potential than devices that pass.

---

<sup>2</sup> *Ultra-Wideband Transmission Systems*, ET Docket No. 98-153, First Report and Order, FCC 02-48 (released April 22, 2002).

Section 15.509(b)(1) (limiting GPR operation to law enforcement, fire and emergency rescue organizations, scientific research institutes, commercial mining companies, and construction companies) was adopted without notice and comment, in violation of Section 553(b)(3) of the APA, and without any support in the record.

Section 15.509(d) (setting emissions limits for GPRs well below the Part 15 general limits) was adopted contrary to all of the relevant evidence in the record.

Section 15.525 (requiring prior coordination of GPR operation with NTIA) was adopted without Section 553(b)(3) notice and comment, and without any support in the record.

### ***1. Adoption without notice and comment***

Sections 15.509(b)(1) and 15.525, which greatly restrict GPR operation, were adopted without any notice whatsoever, and with no opportunity for public comment.

The case law uniformly holds that notice and opportunity for comment are required for valid rule making under the Administrative Procedure Act.<sup>3</sup> We see no conceivable basis on which Sections 15.509(b)(1) and 15.525 can be allowed to stand, until the Commission has issued a Further Notice and accepted and responded to comment.

### ***2. Adoption without supporting evidence in the record***

All of the challenged rules were adopted in the absence of any support whatsoever in the record. Although the First Report and Order generally recites that these rules are intended to

---

<sup>3</sup> *American Medical Ass'n v. Reno*, 57 F.3d 1129, 1132 (D.C. Cir. 1995) (remanding for adequate notice and comment) ("Notice of a proposed rule must include sufficient detail on its content and basis in law to allow for meaningful and informed comment"); *Connecticut Light and Power Co. v. Nuclear Regulatory Comm'n*, 673 F.2d 525, 530 (D.C. Cir. 1982) (notice must provide accurate picture of agency's reasoning to allow meaningful comment), *cert. denied*, 459 U.S. 835 (1982); *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 55 (D.C. Cir. 1977) (notice must provide sufficient information to permit "adversarial critique"), *cert. denied*, 434 U.S. 829 (1977). See our Petition for Partial Reconsideration for further detail.

prevent interference from GPRs,<sup>4</sup> such unsupported indications cannot satisfy the requirements of the APA.<sup>5</sup> *There is absolutely no evidence in the record* (or elsewhere, to our knowledge) that GPRs cause interference, or that the challenged rules would alleviate it. Here, too, the rules may not stand without further procedures.<sup>6</sup>

**C. The Challenged Rules are Contrary to Sound Policy and the Public Interest.**

The APA procedures promote sound regulation by helping to ensure that an agency's decisions are based on complete and current information. The process entails three steps: notice to the public of the proposed rule; receipt of public comment; and justification of the rule in light of the resulting record.<sup>7</sup> A reviewing court "will not uphold an agency's action where it has failed

---

<sup>4</sup> See First Report and Order at paras. 51 (coordination), 185 (usage restrictions), and 188 (emissions limits). We could not find even a recitation concerning the purpose of restricting the UWB bandwidth to frequencies below 960 MHz.

<sup>5</sup> *Time Warner Entertainment v. FCC*, 240 F.3d 1126, 1133 (D.C. Cir.) (agency must "draw reasonable inferences based on substantial evidence"), *cert. denied*, 122 S. Ct. 644 (2001), quoting *Turner Broadcasting System v. FCC*, 512 U.S. 622, 664 (1994); *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Ins.*, 463 U.S. 29, 43 (1983) ("an agency rule would be arbitrary and capricious if the agency . . . offered an explanation for its decision that runs counter to the evidence before the agency . . ."); *Century Communications v. FCC*, 835 F.2d 292, 300-302 (D.C. Cir. 1987) (rejecting FCC's judgment where supported by "scant" evidence); *Bechtel v. FCC*, 957 F.2d 873, 881 (D.C. Cir. 1992) (enunciating agency's responsibility to present evidence and reasoning supporting its substantive rules). See our Petition for Partial Reconsideration.

<sup>6</sup> "[W]here the record belies the agency's conclusion, [the court] must undo its action." *Petroleum Communications v. FCC*, 22 F.3d 1164, 1172 (D.C. Cir. 1994). See our Petition for Partial Reconsideration.

<sup>7</sup> *Connecticut Light and Power Co. v. Nuclear Regulatory Comm'n*, 673 F.2d 525, 530 (D.C. Cir. 1982) ("The purpose of the comment period is to allow interested members of the public to communicate information, concerns, and criticisms to the agency during the rule-making process"), *cert. denied*, 459 U.S. 835 (1982); *ACLU v. FCC*, 823 F.2d 1554, 1581 (D.C. Cir. 1987) (the "opportunity to comment is meaningless unless the agency responds to

to offer a *reasoned explanation that is supported by the record*.<sup>8</sup> A rule adopted without conformance to the APA procedures violates the agency's fundamental responsibility to inform itself about the nature (and existence) of the problem it seeks to solve, and about the likely outcomes -- including unintended consequences -- of its proposed solutions. The current proceeding highlights the dangers: Here, the Commission attempts to solve a problem that does not exist with measures that threaten to shut down a valuable industry while bringing no benefit whatsoever. Regulation without public involvement is simply bad public policy.

These rules are, in addition, flatly contrary to the public interest. They would cripple the GPR industry and impair many safety-related functions that cannot be practically accomplished by other means. For example, the use of metal detectors to locate underground pipes before excavation still leaves the risk of cutting through non-metallic facilities such as concrete pipes, fiber optic cabling, plastic gas lines, and PVC water mains. Severing any of these puts an entire community at risk; and GPR is the only reliable way to detect them. Moreover, GPRs can examine a highway roadbed in motion at 50 mph, where other methods require closing lanes to traffic, which creates congestion and safety hazards. Other applications, including some scientific research, could not be undertaken at all without GPRs. We have attached a partial list of GPR applications as Appendix A.

Section 15.509(a) and (d), on UWB bandwidth and emissions limits, would impair many of these functions by needlessly constraining the performance of GPR equipment. Section

---

significant points raised by the public"); *Home Box Office v. FCC*, 567 F.2d 9, 35-36 (D.C. Cir.) (same), *cert. denied*, 434 U.S. 829 (1977).

<sup>8</sup> *American Tel. & Tel. v. FCC*, 974 F.2d 1351, 1354 (D.C. Cir. 1992) (emphasis added).

15.509(b)(1), limiting those eligible to use GPRs, would bar not only independent service providers and consultants, but safety-critical applications such as testing the integrity of nuclear plants and inspecting dams and airport runways for soundness. Section 15.525, requiring prior coordination with NTIA (and taking up to fifteen business days) is simply impracticable, as many GPR studies are urgent, and are typically completed within a few days after the need first arises. Moreover, based on estimates of 1000 GPR devices in service 200 days a year, with each job taking an average of two days, a GPR users' group calculates 100,000 coordinations per year -- a staggering burden not only on the Commission and NTIA, but on GPR users as well.<sup>9</sup> Each of these rules threatens the timely availability of needed GPR applications, with no concomitant benefit.

**D. The Commission Should Stay Enforcement of the Challenged Provisions and Permit GPR Manufacture and Operation at the Part 15 General Limits Pending Reconsideration.**

Both to preserve a valuable technology and in the interest of simple fairness, the Commission should stay enforcement of the GPR rules pending the reconsideration proceeding.

The Commission has previously granted stays of enforcement where, as here, "the application of a rule could raise issues that are best resolved with the benefit of additional information and arguments."<sup>10</sup>

---

<sup>9</sup> See Petition for Partial Reconsideration of the GPR Service Providers Coalition at 11 (filed June 17, 2002).

<sup>10</sup> *Policy and Rules Concerning the Interstate, Interexchange Marketplace*, 12 FCC Rcd 15739 at para. 15 (1997). See *Unauthorized Changes of Consumers' Long Distance Carriers*, 11 FCC Rcd 856 at para. 2 (1995) (public interest best served by ruling on reconsideration before requiring parties to comply with requirements at issue). See also *Time Warner, Inc.*, 13 FCC Rcd 9734 (1997) (stay of enforcement pending bureau reconsideration); *Mobilcom Pittsburg, Inc.*, 9 FCC Rcd 4101 (1994) (stay of enforcement pending rulemaking).

The Commission evaluates requests for stay under four principles. The petitioner must show (1) it is likely to prevail on the merits; (2) it will suffer irreparable harm if the stay is not granted; (3) other parties will not be harmed by a stay; and (4) a stay is in the public interest.<sup>11</sup>

**(1) Likelihood of prevailing on the merits.** Our Petition for Reconsideration shows that all four challenged rules were adopted in violation of the APA. Two of the rules -- Sections 15.509(b)(1) and 15.525 -- were adopted without any notice whatsoever; and none of the rules had any support in the record. The Commission cannot lawfully enforce these rules without first issuing a Further Notice and -- if possible -- developing a record in support.

This case sets a low threshold for the test. The Commission has held:

[T]he degree to which a probability of success on the merits will be found varies according to the Commission's assessment of the other factors. *When confronted with a case in which other elements strongly favor interim relief, the Commission may exercise its discretion in determining whether to grant a stay.*<sup>12</sup>

Here, the other three elements all but compel relief. The Commission should grant the stay even if it is uncertain about the eventual outcome.

**(2) Irreparable harm in the absence of a stay.** Most GPR operators are small businesses. Many will be unable to work within the new rules, particularly the provisions that require prior coordination and that artificially limit eligibility to operate GPR equipment. Many will lack the resources to replace serviceable equipment that fails to comply with the overly

---

<sup>11</sup> *Brunson Communications, Inc.*, 15 FCC Rcd 12883 at para. 2 (2000), *citing Virginia Petroleum Jobbers Ass'n v. FPC*, 259 F. 2d 921, 925 (D.C. Cir. 1958).

<sup>12</sup> *Brunson Communications, Inc.*, *supra*, 15 FCC Rcd 12883 at para. 2 (citation footnote omitted; emphasis added), *citing Cuomo v. NRC*, 772 F. 2d 972, 974 (D.C. Cir. 1985); *Wisconsin Gas Co. v. FERC*, 758 F. 2d 669, 674 (D.C. Cir. 1985); *Washington Metropolitan Area Transit Comm'n v. Holiday Tours, Inc.*, 559 F. 2d 841, 843-44 (D.C. Cir. 1977).

stringent emissions and bandwidth rules. Without a stay, many of these companies will go out of business. The GPR manufacturers are also small businesses, and will be unable to survive if their customers do not.

**(3) *No harm to other parties.*** No party in this highly contentious proceeding has claimed that GPRs cause interference.<sup>13</sup> The GPR manufacturers and operators are unaware of any interference complaints over decades of operation. The requested stay of enforcement will simply maintain a *status quo* whose safety has never been seriously questioned.

**(4) *Public interest in a stay.*** The challenged rules, if enforced, will severely impair safety-critical GPR operations. The technical rules, Sections 15.509(a) and (d), will hold back the quality of GPR images obtainable. The coordination requirements and limits on eligibility will delay or block needed inspections. Conversely, there is no conceivable harm to the public interest from grant of a stay.

*Exceptions to request for stay.* To eliminate any possible doubts concerning the public interest, GPRIC will not object to enforcement of the following rules pending reconsideration:

- a limitation on GPR operation to parties eligible for licensing under the provisions of Part 90 of the FCC's rules (which excludes consumers); and
- a rule that identifies specific sensitive installations and requires prior coordination within a reasonable radius of each, perhaps a kilometer.

### **CONCLUSION**

The Commission adopted four GPR rules without satisfying the requirements of the APA. These provisions are not only unlawful, but also unwise. They threaten safety-critical applications -- and the survival of a valuable industry -- without offering any benefit.

---

<sup>13</sup> See our Petition for Partial Reconsideration.

The GPRIC asks the Commission to announce it will stay enforcement of the challenged provisions and permit GPR manufacture and operation at the Part 15 general limits pending reconsideration. This request meets all of the applicable legal and equitable criteria.

Respectfully submitted,

Mitchell Lazarus  
FLETCHER, HEALD & HILDRETH, P.L.C.  
1300 North 17th Street, 11th Floor  
Arlington, VA 22209  
703-812-0440  
Counsel for the Ground Penetrating  
Radar Industry Coalition

June 17, 2002

## **Appendix A – Examples of GPR Applications**

Everyday GPR applications include:

- highway inspection to identify voids, pipes, and pavement thickness (essential for safety);
- bridge deck inspection for quality assurance condition assessment and maintenance decisions;
- airport runway inspection to find voids and evaluate pavement thickness -- used by NASA and all major airports (essential for safety);
- railroad bed inspection to find leaking pipes and voids (essential for safety);
- testing the soundness of subsurface environment before excavation (essential for safety);
- detection and 3-D mapping of pipes and utilities before excavation (essential for safety);
- geophysical surveys (locate bedrock, water table, and other geological properties; detect voids and anomalies);
- forensics (locating criminal evidence);
- environmental contamination surveys to determine location and extent of contamination, pipe leaks, waste pits, etc. (essential for safety);
- archaeology -- mapping of underground sites prior to digging;
- mining -- location of mineral deposits, seams, and water levels (essential for safety);
- measurement of ice thickness in rivers and lakes (essential for safety);
- under-ice Arctic and Antarctic research.

Once-in-a-lifetime GPR applications are no less important:

- discovery of the woolly mammoth in Siberia (Discovery Channel);
- survey of unopened royal tomb in Xian, China;

- discovery of unknown village near Macchu Pichu (National Geographic expedition);
- surveys at Washington's Mount Vernon, Jefferson's Monticello, and FDR's home;
- discovery of buried murder victims (some leading to convictions);
- discovery of the emerald deposit in North Carolina, North America's largest;
- location of the "Lost Squadron" in Greenland in 1992 (leading to the upcoming flight of the recovered P-38 aircraft, "Glacier Girl");
- GPR system for Mars exploration, to define creek beds where remnants of life might be found.

**SERVICE LIST**

Chairman Michael K. Powell  
Commission Kathleen Q. Abernathy  
Commissioner Michael J. Copps  
Commissioner Kevin J. Martin  
Ed Thomas, OET  
Julius P. Knapp, OET  
Bruce A. Franca, OET  
Bruce A. Romano, OET  
Michael J. Marcus, OET  
Alan Stillwell, OET  
Lauren Van Wazer, OET  
Karen Rackley, OET  
Alan J. Scrimme, OET  
Geraldine Matise, OET  
John A. Reed, OET  
Ron Chase, OET  
Lisa Gaisford, OET  
Michael D. Gallagher, NTIA