

REASONABLE ACCOMMODATION OF AMATEUR RADIO COMMUNICATIONS BY ZONING AUTHORITIES: THE FCC'S PRB-1 PREEMPTION

I. INTRODUCTION

"CQ Sweepstakes, CQ Sweepstakes, this is Whiskey Four Alpha Quebec Lima."

"November Four Quebec X-ray."

"N4QX, please copy number 369 Sierra, W4AQL, 34, Georgia."

"Thank you, and go Jackets! Please copy number one Alpha, N4QX, 97, Connecticut."

"Thanks, Brennan. Q-R-Zed? This is Whiskey Four Alpha Quebec Lima."

The above exchange, which is nonsense at first glance, actually occurred the morning of Sunday, November 17, 2002. It transpired between two amateur radio stations on opposite ends of the Eastern United States. "Whiskey Four Alpha Quebec Lima" is the amateur station on the campus of the Georgia Institute of Technology, W4AQL.¹ "November Four Quebec X-ray" is N4QX, the station licensed to the author of this Comment,² who attended graduate school at Georgia Tech and wanted to communicate with his alma mater's station. The occasion was the November Sweepstakes, an annual event held by the American Radio Relay League ("ARRL"), a national membership organization of amateur radio operators (and the former employer of the author of this Comment).³ The object of

¹ FCC License Data Search, Georgia Tech Amateur Radio Club, at <http://www.arrl.org/fcc/fcclook.php3?call=w4aq1> (last visited Aug. 1, 2004) (on file with the Connecticut Law Review).

² FCC License Data Search, Brennan T. Price, at <http://www.arrl.org/fcc/fcclook.php3?call=n4qx> (last visited Aug. 1, 2004) (on file with the Connecticut Law Review).

³ ARRL was founded in Hartford, Connecticut, in 1914 by noted inventor Hiram Percy Maxim. Its name, which contains no reference to radio amateurs, was derived from its roots as a wireless message forwarding organization. An early history of amateur radio and ARRL can be found in CLINTON B. DESOTO, *TWO HUNDRED METERS AND DOWN: THE STORY OF AMATEUR RADIO* (ARRL 1936). ARRL continues to publish a variety of books and periodicals of interest to amateur radio operators and electronics enthusiasts, including QST, a monthly periodical. Today, ARRL styles itself as a noncommercial association of radio amateurs, organized for the promotion of interest in Amateur Radio communication and experimentation, for the establishment of networks to provide communication in the event of disasters or other emergencies, for the advancement of the radio art and of the public welfare, for the representation of the radio amateur in legislative matters, and for the maintenance of fraternalism and a high standard of conduct.

the event was to communicate and exchange information with as many stations throughout the United States and Canada as possible.⁴ The place was the 20-meter amateur radio band, a portion of radio spectrum often suitable for long-distance communications during daylight hours.⁵ Words from a phonetic alphabet⁶ were used in lieu of letters in order to enhance intelligibility of the information exchanged, which consisted of serial numbers, competition classes, call signs, the years in which the stations were first licensed, and the stations' locations.⁷ At the beginning and end of the exchange, the Georgia Tech station solicited a communication with another station; CQ means "Calling any station,"⁸ and QRZ?—with the British pronunciation of Z—means "Who is calling me?"⁹

Amateur radio is an activity with a language all its own, one as unfamiliar to the general public as the language of law can be to non-lawyers. Amateur radio is also a federally regulated communications service, with an entire part of the Code of Federal Regulations dedicated to it.¹⁰ Most of the rules in this part are relatively uncontroversial, but one seemingly innocuous regulation has been the subject of a significant amount of litigation: the regulation limiting state and local regulation of amateur station antenna structures. "State and local regulation of a station antenna structure must not preclude amateur service communications. Rather, it must reasonably accommodate such communications and must constitute the minimum practicable regulation to accomplish the state or local authority's legitimate purpose."¹¹ Since amateur radio is an activity that is foreign to many people, including those who serve on municipal councils and zoning boards, this regulation is rarely considered when antenna structure ordinances are created. Much of the litigation in this area has pitted an amateur against a municipality that had either declined to grant a zoning permit for an antenna structure or granted a permit for a structure that the amateur deemed inadequate. In some cases, the amateur prevailed; in others, the

The American Radio Relay League, Inc., QST, Dec. 2002, at 9. ARRL is a dominant publisher of amateur radio material, and its publications will be cited freely herein.

⁴ 2002 ARRL November Sweepstakes Rules, QST, Oct. 2002, at 100.

⁵ See THE ARRL HANDBOOK FOR RADIO COMMUNICATIONS 21.4 (Dana G. Reed ed., 80th ed. 2002) [hereinafter HANDBOOK].

⁶ *Id.* at 30.40. The practice of using a phonetic alphabet to identify is even encouraged by regulation. 47 C.F.R. § 97.119(b)(2) (2003).

⁷ 2002 ARRL November Sweepstakes Rules, QST, Oct. 2002, at 100.

⁸ HANDBOOK, *supra* note 5, at 30.40.

⁹ *Id.* at 30.38.

¹⁰ Amateur Radio Service, 47 C.F.R. pt. 97 (2003).

¹¹ 47 C.F.R. § 97.15(b) (2003).

municipality successfully defended its regulation.¹² The results of reported cases in this area, at first glance, seem to be all over the map, and for a number of years, the body of caselaw in this area had been unchanged since the Eighth Circuit's decision in *Pentel v. City of Mendota Heights*.¹³

This has changed within the past three years. In late 2001, two new decisions followed the reasoning of *Pentel*, invalidated restrictions imposed on amateurs, and established some degree of consistency.¹⁴ In early 2003, another decision cited *Pentel* while upholding a zoning decision adverse to an amateur.¹⁵ All three decisions are of note both to zoning authorities and counsel for amateurs.¹⁶

This Comment seeks to familiarize practitioners and zoning authorities with amateur radio, the federal preemption of zoning regulations affecting antennas at amateur radio stations, and how courts and state legislatures have addressed this preemption. The principle of reasonable accommodation will be stressed. Amateurs and their counsel must demonstrate that the system they desire is necessary to reasonably accommodate their communications, while realizing that a municipality is not always required to grant their dream antenna system in order to achieve that goal. On the other hand, municipalities must provide reasonable accommodation in all cases, and may not impose a restriction that does not provide such accommodation. If amateurs and municipalities approach these cases with this mindset, costly litigation of the type explored here should almost always be

¹² Compare *Williams v. City of Columbia*, 906 F.2d 994 (4th Cir. 1990) (sustaining South Carolina municipality's denial of special exception allowing amateur to construct a retractable antenna system varying in height from 28 to 65 feet where ordinance limited height to 17 feet), with *Pentel v. City of Mendota Heights*, 13 F.3d 1261 (8th Cir. 1994) (holding that Minnesota municipality's ordinance limiting antenna systems to 25 feet in height was preempted as applied to amateur seeking to improve an existing antenna system from an ineffective design at 56.5 feet to a more effective design at 68 feet). These cases are discussed further at Part III, *infra*.

¹³ 13 F.3d 1261 (8th Cir. 1994).

¹⁴ See *Palmer v. City of Saratoga Springs*, 180 F. Supp. 2d 379 (N.D.N.Y. 2001) (holding that municipality's planning board failed to attempt to negotiate a compromise, and that municipality's zoning ordinance was preempted as a result); *Marchand v. Town of Hudson*, 788 A.2d 250 (N.H. 2001) (holding that lower court could not order amateur to dismantle three 100-foot antenna structures, even while affirming lower court's finding that the towers were not an "accessory use" under the town's zoning ordinance). These cases are discussed in depth at Parts IV.A and IV.B, *infra*.

¹⁵ See *Bosscher v. Township of Algoma*, 246 F. Supp. 2d 791 (W.D. Mich. 2003) (upholding planning commission's denial of application for a 180-foot antenna structure when commission had attempted to negotiate a compromise). *Bosscher* is discussed in depth at Part IV.C, *infra*.

¹⁶ As this Comment goes to press, a fourth amateur radio antenna case is winding its way through the New Mexico appellate system. The New Mexico Court of Appeals, while finding that amateur radio towers were a permissive use in a rural residential zone, nevertheless upheld the revocation of a building permit issued to an amateur to construct two 140-foot towers, holding that such a system was not a customarily incidental use. *Smith v. Bd. of County Comm'rs*, 82 P.3d 547 (N.M. App. 2003). Since amateur radio towers were held to be a permissive use, the court did not address the preemption issue that is the topic of this Comment. See *id.* at 552. However, certiorari was granted by the New Mexico Supreme Court. *Id.* at 547. The preemption issue may be addressed there.

avoided.

Part II of this article will examine the basis and purpose of the amateur radio service, the various activities in which radio amateurs engage, and the necessity for radio amateurs to install antennas in order to pursue these activities. Part III will explore the Federal Communications Commission's ("FCC") establishment of the federal preemption in 1985, the wide range of litigation results from 1985 to 1994, and the FCC's recent administrative rulings regarding the preemption. Part IV will examine the recent decisions, distinguish them from previous decisions, and advocate that the approaches adopted by the courts in these cases are correct. Part V will examine legislation adopted by eighteen states incorporating the essence of the PRB-1 preemption into state statutes, giving municipalities guidance in implementing the preemption. In the concluding Part VI, I will suggest that parties to amateur antenna cases should avoid the pitfalls that trapped the losers in the published cases, calling on municipalities to realize their duties under PRB-1, and calling on amateurs to persuasively support the systems they request.

II. AN AMATEUR RADIO PRIMER FOR PRACTITIONERS

The basis and purpose of the amateur radio service in the United States is succinctly spelled out at the start of the FCC's applicable rules:

The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

- (a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.
- (b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.
- (c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communications and technical phases of the art.
- (d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.
- (e) Continuation and extension of the amateur's unique

ability to enhance international goodwill.¹⁷

Amateur radio is therefore a hobby with some atypical purposes, which the federal government has seen important enough to codify. While most of the United States' nearly 700,000 radio amateurs¹⁸ use their access to radio spectrum for recreational purposes,¹⁹ their activities routinely further the five principles in their service's regulatory basis and purpose. For example, amateurs continue to develop new modes of communication, most notably in the area of digital telegraphy (the transmission of data and text by wireless signals). Within the past decade, amateurs have developed systems to display the locations of stationary and mobile amateur radio stations on a map²⁰ and a new digital mode which is remarkable in that it occupies a minuscule amount of radio spectrum, allowing numerous transmissions within a limited amount of bandwidth.²¹ Such innovations can be said to "contribute to the advancement of the radio art."²² Amateur operators' responses to communications emergencies have been well documented in both the popular and amateur radio press.²³ Government and industry officials have recognized the usefulness of the radio amateur's voluntary role in communications emergencies, and have provided funding to further train hams²⁴ for such duties.²⁵ While the enhancement of "international goodwill" is somewhat more difficult to document, amateur radio communications are routinely conducted across international boundaries,²⁶ and the common interest in communications among amateurs around the

¹⁷ Amateur Radio Service, Basis and purpose, 47 C.F.R. § 97.1 (2003).

¹⁸ As of September 7, 2004, 674,760 individuals hold a United States amateur radio license, according to statistics found at FCC License Counts, at <http://www.arrl.org/fcc/stats.html> (modified daily).

¹⁹ HANDBOOK, *supra* note 5, at 1.2–1.7.

²⁰ See Bob Bruninga, *Interfacing GPS or LORAN Devices to Packet Radio*, QEX, Feb. 1994, at 9 (describing the Automatic Packet Reporting System).

²¹ See Peter Martinez, *PSK31: A New Radio-Teletype Mode*, QEX, July/Aug. 1999, at 3.

²² 47 C.F.R. § 97.1(b).

²³ Amateur radio response in the wake of the September 11, 2001, terrorist attacks was substantial, as stations were established at recovery sites and shelters in New York City, at and near the Pentagon, and in Pennsylvania. See Rick Lindquist, *9/11/01: 'This is Not a Test'*, QST, Nov. 2001, at 28; Ken Valenti, *Red Cross Seeks Volunteers, Money*, WESTCHESTER J.-NEWS, Sept. 16, 2001, at 2B.

²⁴ A "ham" is an amateur radio operator. The term originated in the early days of amateur radio (also known as "ham radio"). It is a generally accepted contraction for "amateur." HANDBOOK, *supra* note 5, at 1.1.

²⁵ See Thuy-Doan Le, *Radio League Awarded Grant*, HARTFORD COURANT, Apr. 1, 2003, at B3 (detailing \$150,000 grant from United Technologies Corp. to the ARRL to fund training of amateur radio operators in Connecticut); Maurice Timothy Reidy, *A Vital Calling Rewarded: Federal Grant Boosts Ham Radio Group*, HARTFORD COURANT, Jul. 28, 2002, at B1 (reporting \$181,900 homeland security grant from the Corporation for National and Community Service to the ARRL to fund training of 1,700 amateur radio operators nationwide).

²⁶ HANDBOOK, *supra* note 5, at 2.1–2.2.

world does lend itself to a spirit of fraternalism. In their recreational pursuit of radio, hams are fulfilling the FCC's regulatory goals for the service.

A fundamental requirement for any amateur radio station is at least one antenna.²⁷ The ideal size of an amateur radio antenna will vary with respect to the frequency the ham plans to use.²⁸ While there are a number of methods an amateur can use to shorten the antennas he or she uses on relatively low frequencies, all antennas are usually more effective the higher they are off the ground.²⁹ In order to achieve these heights, an amateur might need to build an artificial support, or tower. In the cases examined herein, the construction and maintenance of these supports is at issue.

Aside from very limited cases, inapplicable to most amateurs, there are no federal restrictions on the construction of amateur stations and antenna systems.³⁰ As a practical matter, amateurs must construct their antenna structures in accordance with local zoning ordinances, which can have very divergent provisions. Prior to the FCC's adoption of the preemption in 47 C.F.R. § 97.15(b), some amateurs found themselves simply out of luck when seeking to erect an antenna in the face of a hostile ordinance.³¹ The FCC's preemption statement,³² issued in 1985, changed the nature of the game.

III. PRB-1 FROM ESTABLISHMENT TO 2001

A. *The 1985 Preemption*

The 1985 preemption came after a mid-1984 Request for Issuance of a Declaratory Ruling from the ARRL to the FCC.³³ While acknowledging that regulation of amateur radio installations was permissible for health and safety reasons, ARRL argued that such regulations could not preclude effective amateur communications.³⁴ Interested parties filed over 1,600 comments in the administrative proceeding,³⁵ which considered both pub-

²⁷ *Id.* at 20.1.

²⁸ For instance, the ideal length in feet of a common type of amateur antenna, the half-wave antenna, is $468/f$, where f is the frequency of transmission. A half-wave antenna for 7.15 MHz (the midpoint of the amateur 40-meter band) is therefore 65.45 feet. *Id.* at 20.4.

²⁹ *See id.* at 20.3.

³⁰ The few that exist are codified at 47 C.F.R. §§ 97.13, 97.15(a) (2003). They deal with stations on land of environmental or historical importance, near an FCC monitoring facility, or near an airport.

³¹ *See, e.g.,* Guschke v. City of Oklahoma City, 763 F.2d 379 (10th Cir. 1985) (finding that regulatory scheme did not suggest preemption of zoning ordinance restricting antenna height to 35 feet and denying constitutional claims).

³² Federal Preemption of State and Local Regulations Pertaining to Amateur Radio Facilities, 101 F.C.C.2d 952 (1985) [hereinafter PRB-1, which is the docket number assigned to the proceeding and how the preemption is referenced among amateurs and many courts].

³³ *Id.* ¶ 1.

³⁴ *Id.*

³⁵ *Id.* ¶ 2.

lic³⁶ and private³⁷ land use restrictions.

ARRL was supported in its request by the Department of Defense,³⁸ various chapters of the American Red Cross,³⁹ and a few scattered municipalities.⁴⁰ By and large, however, municipalities, through the National Association of Counties and the National League of Cities, opposed preemption.⁴¹ These organizations urged that preemption would weaken the traditional local police power over zoning, and that whatever federal interest existed in amateur radio could be accommodated without a preemption statement.⁴²

The Commission undertook a preemption analysis,⁴³ noting the tension between the Tenth Amendment's reservation of unenumerated powers to the states⁴⁴ and the preemptive authority of the Supremacy Clause.⁴⁵ In the absence of an express Congressional preemption, the FCC noted the holding in *Fidelity Federal Savings & Loan Ass'n v. de la Cuesta*⁴⁶ that a pervasive congressional regulatory scheme could be presumed to be preemptive, and that federal regulations had the same preemptive effect as federal statutes.⁴⁷ With this in mind, the FCC acknowledged that "certain general state interests . . . may, in their even-handed application, legitimately affect amateur radio facilities."⁴⁸ However, the Commission felt justified in making a preemption statement based on the regulatory scheme found in Part 97 of its rules:

[Part 97 sets] forth procedures for the licensing of stations and operators, frequency allocations, technical standards which amateur radio equipment must meet and operating practices which amateur operators must follow. We recognize the Amateur [R]adio [S]ervice as a voluntary, noncommercial communication service, particularly with respect to providing emergency communications. Moreover, the [A]mateur [R]adio [S]ervice provides a reservoir of trained

³⁶ *Id.* ¶¶ 3–6.

³⁷ *Id.* ¶¶ 7–9.

³⁸ *Id.* ¶ 10.

³⁹ *Id.* ¶ 11.

⁴⁰ *Id.* ¶ 12.

⁴¹ *Id.* ¶ 19.

⁴² *Id.*

⁴³ *Id.* ¶ 20.

⁴⁴ U.S. CONST. amend. X.

⁴⁵ *Id.* art. VI, § 2. It is interesting to note that the FCC did not cite the Supremacy Clause correctly in its preemption ruling, calling attention instead to art. III, § 2. PRB-1, *supra* note 32, ¶ 20.

⁴⁶ 458 U.S. 141 (1982).

⁴⁷ PRB-1, *supra* note 32, ¶ 20 (citing *de la Cuesta*, 458 U.S. at 153).

⁴⁸ PRB-1, *supra* note 32, ¶ 24.

operators, technicians and electronics experts who can be called on in times of national or local emergencies. By its nature, the Amateur Radio Service also provides the opportunity for individual operators to further international goodwill. Upon weighing these interests, we believe a limited preemption policy is warranted.⁴⁹

In language that proved contentious in early litigation, the FCC said it was appropriate to “strike a balance” between the federal and local interests.⁵⁰ Its attempt to strike such a balance was the “reasonable accommodation” principle.⁵¹ While declining to specify a height below which a municipality could not regulate, the FCC came up with this test: “[L]ocal regulations which involve placement, screening, or height of antennas based on health, safety, or aesthetic considerations must be crafted to accommodate reasonably amateur communications, and to represent the minimum practicable regulation to accomplish the local authority’s legitimate purpose.”⁵²

B. *Early PRB-1 Cases*

PRB-1 had an immediate effect on ongoing amateur radio tower litigation, most notably on the Sixth Circuit’s consideration of *Thernes v. City of Lakeside Park*.⁵³ Oral arguments in *Thernes* were heard on the very day the FCC issued its PRB-1 decision.⁵⁴ The plaintiff amateur operator was contesting the validity of Lakeside Park, Kentucky’s, Zoning Ordinance, which both sides agreed absolutely prohibited the erection of amateur radio antenna towers.⁵⁵ *Thernes* appealed after the district court, in an unreported decision, denied his claim of preemption because “the FCC evinced no intent to supplant the fundamentally local concerns expressed in land

⁴⁹ *Id.* (altered where indicated to standardize the FCC’s curious use of three distinct capitalizations of the phrase “Amateur Radio Service” within three consecutive sentences).

⁵⁰ *Id.* ¶ 22.

⁵¹ *Id.* An early student writer on this topic misinterpreted the concept of “reasonable accommodation” as applicable to both local and federal interests. See Alice J. Schwartz, Note, *Federal Preemption of Amateur Radio Antenna Height Regulation: Should the Sky Be the Limit?*, 9 CARDOZO L. REV. 1501, 1526 (1988). The plain language of the preemption imposes the duty of reasonable accommodation on the zoning authority. PRB-1, *supra* note 32, ¶ 25; 47 C.F.R. § 97.15(b) (2003). Schwartz also seized on the “strike a balance” language in PRB -1 a to argue that “[a] reasonable accommodation standard necessitates weighing both state and federal interests to assess which should prevail.” Schwartz, *supra*, at 1503; see also *id.* at 1510–26 (listing eight paragraphs of purported state interests, one paragraph of federal interests, concluding that the balance favors state interests, and dismissing amateur radio as “merely a hobby”). Such a balancing test has been rejected by a plurality of circuits and the FCC. See discussion *infra* Parts III.D-E.

⁵² PRB-1, *supra* note 32, ¶ 25.

⁵³ 779 F.2d 1187 (6th Cir. 1986).

⁵⁴ *Id.* at 1188.

⁵⁵ *Id.* at 1187–88.

use control ordinances.”⁵⁶ Two judges of a three-judge panel vacated the decision of the district court and remanded the case, noting, “This recent exercise of its latent preemptive . . . powers by the FCC strongly suggests that the ban upon the erection of amateur radio station antennas . . . may now contravene federal law.”⁵⁷ The third judge was less kind to Lakeside Park; in dissent, he suggested the lack of a rational basis for the ordinance in question⁵⁸ and indicated he would reverse the district court outright and award costs and attorney’s fees.⁵⁹ Perhaps motivated by the specter of such an award on remand, Lakeside Park eventually settled on terms favorable to Thernes.⁶⁰

Thernes involved the rather open-and-shut case of an absolute prohibition on amateur antenna towers. PRB-1 clearly disallowed such prohibitions, but even marginally permissive ordinances were struck down in a series of cases following *Thernes*. The leading case with respect to a minimally permissive ordinance is *Bodony v. Incorporated Village of Sands Point*.⁶¹ The plaintiff amateur radio licensee in *Bodony* challenged Sands Point’s rigid application of a 25-foot limit on “accessory buildings,” including amateur radio towers.⁶² He desired to erect a retractable antenna structure, 23 feet in height when retracted and 86 feet in height when extended.⁶³ Sands Point’s Zoning Board denied his application for a variance from the height limitation, citing the following reasons:

Within the Village of Sands Point there are several residents who operate amateur radio stations with towers and antennas which conform to the height restrictions of the Building Zone Ordinance of the Village and communicate at frequent intervals.

The applicant has failed to demonstrate that he cannot operate an amateur radio station with an antenna which conforms to the height restriction in the Building Zone Ordinance and that he has suffered any hardship.

⁵⁶ *Id.* at 1188 (internal quotations omitted).

⁵⁷ *Id.* at 1189.

⁵⁸ *See id.* at 1189–90 (Krupansky, J., dissenting).

⁵⁹ *Id.* at 1191.

⁶⁰ *See Thernes v. City of Lakeside Park*, 62 Rad. Reg. 2d (P&F) 284, 285–86 (E.D. Ky. 1987) (summarizing agreement to award damages to Thernes and allow him two antennas on a support structure totaling 73 feet in height).

⁶¹ 681 F. Supp. 1009 (E.D.N.Y. 1987).

⁶² *Id.* at 1010.

⁶³ *Id.*

The applicant has failed to prove that the tower and the antenna thereon is [sic] safe.

The proposed construction of the tower and antenna would (a) depreciate the value of the property of the Village; (b) create a hazard to health, safety and general welfare; (c) be detrimental to the character of the neighborhood or to the residents thereof; (d) alter the essential character of the neighborhood, or (e) otherwise be detrimental to the public convenience and welfare.⁶⁴

Bodony then initiated litigation, claiming a violation of the PRB-1 preemption and asserting various constitutional claims.⁶⁵ Bodony moved for summary judgment on the PRB-1 claim,⁶⁶ and Sands Point moved for dismissal “on the ground that the Zoning Board did not act arbitrarily or unreasonably”⁶⁷

After quoting extensively from PRB-1, Judge Mishler concluded that the FCC regulation required Sands Point to “vary the ordinance . . . so that [Bodony] may use the license granted him by the F.C.C. for international communications, and [use] the least restrictive height to accomplish its ‘legitimate purpose.’”⁶⁸ Turning to the Zoning Board’s action, the Court immediately took issue with Sands Point’s assertion that a 25-foot limitation falls outside the preemptive effect of PRB-1, because communications would not be precluded.⁶⁹ After discussing the effects of antenna height on communications effectiveness, the Court held that an argument that communication is not precluded “is not the answer to a claim of preemption.”⁷⁰ Judge Mishler noted that the Zoning Board did not consider a greater height that would “accomplish [their] legitimate purpose”⁷¹ and said the record before the Zoning Board clearly established that the 25-foot limit was inadequate for Bodony’s purposes.⁷²

⁶⁴ *Id.* (error designation in original).

⁶⁵ *Id.* at 1010–11.

⁶⁶ *Id.* Bodony also sought summary judgment on two constitutional claims. *Id.* The court declined to address the constitutional claims. *Id.* at 1013 n.3.

⁶⁷ *Id.* at 1011.

⁶⁸ *Id.* at 1012.

⁶⁹ *See id.* (stating as “fact” that building ordinance “does not prohibit amateur communications”).

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.* at 1013. The record before the Zoning Board was summarized by the court:

Testimony of experts indicates that a height of 60 to 70 feet is necessary for good reception under ideal atmospheric conditions. One Carl Silar, an amateur radio operator, stated that he received communications worldwide using an antenna which was less than 25 feet. He conceded 50 feet, 60 feet or 70 feet would achieve a better result.

The Court also found that the record failed to sustain the Zoning Board's health, safety, welfare, and property valuation arguments.⁷³ Particularly dismissing any aesthetic concerns, Judge Mishler noted, "It is uncertain how the . . . antenna system will affect the outward appearance or aesthetic harmony of the neighborhood, given the proposed shielding of the system by trees."⁷⁴ Finding that "[t]he action of the Zoning Board is devoid of any effort to make a reasonable accommodation,"⁷⁵ the Court found that the ordinance was preempted as applied to Bodony.⁷⁶

Other decisions favorable to amateurs followed in the next four years.⁷⁷ In its early years, PRB-1 was proving to be a very useful tool to amateurs fighting adverse zoning decisions. The tide was rising, but sooner or later, tides tend to turn.

C. *Williams and the Balancing of Interests Doctrine*

The tide turned in the Fourth Circuit case of *Williams v. City of Columbia*.⁷⁸ Finding that the plaintiff could communicate, albeit ineffectively, the court upheld the validity of a 17-foot height limitation.⁷⁹ According to unreported details of the trial, the plaintiff was not helped by his failure to make an effective technical case for need.⁸⁰ Testimony from the Chairman of the Electrical Engineering Department at the University of South Carolina that communications, albeit degraded, were possible within the confines of the ordinance was "very damaging."⁸¹ Further, the fact that Williams did not participate in emergency relief activities was apparently not favorably received by the Zoning Board of Adjustment ("ZBA").⁸² There seems to be consensus among amateur radio attorneys that Williams

Id. at 1013 n.2. The record before a municipal zoning board is often determinative in these cases, and I argue that it should be. See discussion *infra* Parts III.C, IV.C.

⁷³ *Id.* at 1013.

⁷⁴ *Id.*

⁷⁵ *Id.* (internal quotation omitted).

⁷⁶ *Id.* at 1013. The Court also ruled that there were material issues of fact with respect to whether the Zoning Board acted arbitrarily and capriciously. *Id.* at 1013–14.

⁷⁷ See *Howard v. City of Burlingame*, 937 F.2d 1376, 1380 (9th Cir. 1991) (requiring municipality to "consider[] the application, ma[k]e factual findings, and attempt[] to negotiate a satisfactory compromise with the applicant"); *Izzo v. Borough of River Edge*, 843 F.2d 765 (3d Cir. 1988) (upholding the validity of the federal interest stated in the PRB-1 preemption and prohibiting district court from abstaining in a state law zoning matter); *MacMillan v. City of Rocky River*, 748 F. Supp. 1241 (N.D. Ohio 1990) (finding facially valid ordinance invalid as applied when municipality denied permit for 30-foot antenna system); *Bulchis v. City of Edmonds*, 671 F. Supp. 1270 (W.D. Wash. 1987) (finding ordinance requiring conditional use permit for heights above 25 feet to be procedurally defective).

⁷⁸ 906 F.2d 994 (4th Cir. 1990).

⁷⁹ *Id.* at 995, 999.

⁸⁰ FRED HOPENGARTEN, *ANTENNA ZONING FOR THE RADIO AMATEUR* A.14 (2001)

⁸¹ *Id.*

⁸² *Williams*, 906 F.2d at 998.

could have presented a better case.

However, an amateur's problem with the *Williams* decision goes beyond the lackluster case advanced by the plaintiffs. Seizing on the "strike a balance" language in the original PRB-1 decision,⁸³ the Fourth Circuit suggested the appropriate test was to balance municipal zoning objectives with amateur communications needs in coming to a result.⁸⁴ "The law requires only that the City balance the federally recognized interest in amateur radio communications with local zoning concerns," the court held.⁸⁵ This suggested that "reasonable accommodation" would be found if a municipality engaged in this balancing, even if the resulting antenna system was ineffective (hardly a "reasonable accommodation" from the amateur's standpoint). If this view that a balancing of interests was sufficient to meet a municipality's obligations under PRB-1 were to take hold, then a municipality could conceivably justify any height restriction by citing a municipal interest, applying great weight to it in a balancing test, and taking advantage of the minimal "arbitrary and capricious" and "clearly erroneous" standards of review for findings of fact.⁸⁶ Clearly, amateurs would seek to limit the expansion of the Fourth Circuit's balancing doctrine.

D. *Evans and Pentel: Balancing of Interests Rejected by the Tenth and Eighth Circuits*

While the Fourth Circuit planted the seed of the balancing approach, it has not taken root in other circuits. Such an approach was explicitly rejected in the final two reported amateur radio antenna cases before a seven-year hiatus, *Evans v. Board of County Commissioners*⁸⁷ and *Pentel v. City of Mendota Heights*.⁸⁸ Oddly enough, the rejection of the balancing test was not dispositive: the two cases did not come out the same way.

Evans came first. The Tenth Circuit nicely summarized the case: "Evans desired a tower 100 feet high; the County decided thirty-five feet was sufficient; and the district court decided eighty feet was just right."⁸⁹ The circuit court, wryly noting at the outset the vagueness of the regulations, reviewed de novo.⁹⁰ Boulder County characterized "its responsibility to

⁸³ *Id.* at 997 (quoting PRB-1 ¶ 22).

⁸⁴ *Id.* at 998.

⁸⁵ *Id.*

⁸⁶ *See id.* at 996 (using these standards in *Williams*).

⁸⁷ 994 F.2d 755, 762-63 (10th Cir. 1993).

⁸⁸ 13 F.3d 1261, 1264 (8th Cir. 1994).

⁸⁹ *Evans*, 994 F.2d at 757.

⁹⁰ *See id.* at 760 (noting with respect to the PRB-1 ruling, "The regulations attempt to strike a compromise between two competing interests and, as is true of many compromises, have omitted the details leaving both sides the impression they received the biggest piece of the divided cake").

reasonably accommodate as a balancing test.”⁹¹ The court disagreed, rejecting the Fourth Circuit’s finding that balancing was all that was required.⁹² “We believe the balancing approach underrepresents the FCC’s goals as it specifically selected the ‘reasonably accommodate’ language.”⁹³ The first step away from *Williams* had been made.

Nevertheless, the Tenth Circuit found that the district court afforded the county too little discretion and found against Evans.⁹⁴ Unlike *Bodony*⁹⁵ and *Bulchis v. City of Edmonds*,⁹⁶ there was evidence in the record that Boulder County negotiated with Evans.⁹⁷ Even though the court concluded that the compromise offered—a 60-foot retractable tower—was of “debatable viability”⁹⁸ due to high winds that were common in the area, it held that this potentially unviable compromise constituted reasonable accommodation.⁹⁹ According great deference to the County’s finding that vegetative screening would take ten years to be effective,¹⁰⁰ the court held that the county’s denial of Evans’s permit “was the minimum practical regulation necessary to accomplish their goals.”¹⁰¹ The court did not address whether any of the compromises discussed by Evans and the County would have been both viable and effective, abruptly stopping its work upon finding that the County’s efforts alone constituted reasonable accommodation.¹⁰²

While the result in *Evans* is a hollow defeat of the *Williams* balancing doctrine from an amateur’s standpoint, *Pentel* was much more satisfying. Plaintiff Sylvia Pentel already had a vertical antenna system on her roof, totaling 56.5 feet in height above ground level.¹⁰³ She applied for a permit to build a retractable steel tower, 30 feet high when lowered and 68 feet high when extended.¹⁰⁴ The ineffectiveness of her existing antenna system and the improvements that her proposed system would make were docu-

⁹¹ *Id.* at 762.

⁹² *Id.* at 762–63.

⁹³ *Id.*

⁹⁴ *Id.* at 761–63.

⁹⁵ See discussion *supra* Part III.B.

⁹⁶ 671 F. Supp. 1270 (W.D. Wash. 1987); see *supra* note 77.

⁹⁷ 994 F.2d at 762.

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ See *id.* at 757, 762.

¹⁰¹ *Id.* at 763.

¹⁰² *Id.* The reader is left to wonder what might have happened had Evans and the county yielded just a bit more on their last compromise, with Evans accepting the 60-foot height and the County allowing for a permanent tower.

¹⁰³ *Pentel v. City of Mendota Heights*, 13 F.3d 1261, 1262 (8th Cir. 1994).

¹⁰⁴ *Id.*

mented in the record.¹⁰⁵ The city denied Pentel's permit application, stating no factual findings and giving no reasons for the denial.¹⁰⁶ Mendota Heights attempted reasonable accommodation by issuing a special use permit for her already existing and ineffective antenna.¹⁰⁷ Pentel sued, claiming that the city had failed to provide reasonable accommodation.¹⁰⁸ Pentel appealed the district court's grant of summary judgment to the city.¹⁰⁹

The Eighth Circuit then summarized the ways in which PRB-1 may preempt a local ordinance.¹¹⁰ It found that an ordinance was preempted on its face if it "bans [or] imposes an unvarying height restriction on amateur radio antennas."¹¹¹ Since the Mendota Heights ordinance allowed for a special use exception to the 25-foot height restriction, it passed this test.¹¹²

The court then found that an ordinance was invalid as applied if the ordinance is not "applied in a manner that reasonably accommodates amateur communications."¹¹³ It then addressed the *Williams* balancing test and squarely rejected it—holding that the FCC had already done the balancing:

At various places in PRB-1, the FCC states that, in considering the issue before it, it weighed federal and amateur operator interests against those of local governments. After balancing these interests, the standard that the FCC concluded was appropriate was that a local government must reasonably accommodate amateur radio communications.¹¹⁴

The court found that there was a clear distinction between reasonable accommodation and a balancing of interests.¹¹⁵ "This distinction is impor-

¹⁰⁵ *Id.* ("Pentel was unable to establish reliable radio communications with other amateurs across the United States [using the 56.5-foot antenna], and she was able to establish only one international contact.").

Pentel's proposed antenna would be more effective than her existing set-up for two reasons. First, Pentel's current vertical antenna dissipates signals in all directions, while her proposed directional antenna would concentrate and collect signals, thus increasing her ability to transmit and receive in a specific direction. Second, an antenna's effectiveness increases with its height. Pentel's existing antenna is blocked by trees. Her taller replacement antenna, when extended, would be at or near the tops of nearby trees, thus improving her signal transmission and reception.

Id. at 1262 n.1.

¹⁰⁶ *Id.* at 1262.

¹⁰⁷ *Id.* at 1262–63.

¹⁰⁸ *Id.* at 1263.

¹⁰⁹ *Id.*

¹¹⁰ *Id.* at 1263–64.

¹¹¹ *Id.* at 1263.

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.* at 1264 n.5.

¹¹⁵ *Id.* at 1264.

tant, because a standard that requires a city to accommodate amateur communications in a reasonable fashion is certainly more rigorous than one that simply requires a city to balance local and federal interests when deciding whether to permit a radio antenna.”¹¹⁶

While holding that this standard did not “allow the amateur to erect any antenna she desires,”¹¹⁷ the court did adopt the requirements of the Ninth Circuit’s decision in *Howard v. City of Burlingame*.¹¹⁸ Applying *Howard*, the court found that Mendota Heights was required to “consider the application, make factual findings, and attempt to negotiate a satisfactory compromise with the applicant.”¹¹⁹ Citing the city’s failure to make factual findings and the lack of support in the record for the concerns raised in the planning hearings, the court found that allowing an existing, ineffective antenna installation did not reasonably accommodate Pentel’s amateur radio communications.¹²⁰ Reversing the district court, the Eighth Circuit granted summary judgment to Pentel and ordered Mendota Heights to reasonably accommodate her interests.¹²¹

Thus, two circuits have explicitly rejected the *Williams* balancing doctrine. However, the *Evans* and *Pentel* decisions differ in result because they disagree on the question of whether an ineffective accommodation constitutes a reasonable accommodation. It was not until 2001, when *Pentel*—not *Evans*—was followed in two reported cases, that courts would answer that question—correctly—in the negative.¹²²

E. *The 1999 Preemption Affirmation: Balancing of Interests Rejected by the FCC*

In 1996, the ARRL sought to strengthen the PRB-1 preemption.¹²³ In 1999, the FCC declined to do so, but not without some benefit to amateur radio operators. While the FCC declined to extend the preemption to pri-

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ 937 F.2d 1376, 1380 (9th Cir. 1991).

¹¹⁹ 13 F.3d at 1264 (internal quotations and alterations omitted).

¹²⁰ *Id.* at 1264–65.

¹²¹ *Id.* at 1266.

¹²² See discussion *infra* Part IV.A–B.

¹²³ See Modification and Clarification of Policies and Procedures Governing Siting and Maintenance of Amateur Radio Antennas and Support Structures, and Amendment of Section 97.15 of the Commission’s Rules Governing the Amateur Radio Service, 14 F.C.C.R. 19,413 ¶ 1 (1999) [hereinafter PRB-1 Clarification]. Among the requests denied by the FCC was a request to apply PRB-1 to private land use restrictions, such as covenants. See *id.* ¶ 3. This Comment does not address such private restrictions. For a student-written work that does, see Frank A. Tomasello, Jr., Note, *Regulation of Amateur Radio Antenna Height, Restrictive Covenants and Local Regulation: Is the Ham’s Goose Cooked?*, 16 RUTGERS COMPUTER & TECH. L.J. 227, 240–52 (1990) (arguing—persuasively—that PRB-1 should have preempted applicable covenants).

vate land use restrictions (covenants, conditions, and restrictions)¹²⁴ and also refused to establish a blanket height below which state and local governments could not regulate,¹²⁵ the FCC rejected the balancing of interests approach adopted by the *Williams* court as inappropriate.¹²⁶

Citing the plain language of the preemption regulation, the FCC found that the reasonable accommodation standard was “precisely stated” in the 1985 decision.¹²⁷ Citing the portion of the decision requiring zoning regulations to “accommodate reasonably amateur communications, and to represent the minimum practicable regulation to accomplish the local authority’s legitimate purpose,” the FCC concluded that in light of this “express Commission language, it is clear that a ‘balancing of interests’ approach is not appropriate in this context.”¹²⁸

While couched as a denial of ARRL’s request,¹²⁹ paragraph seven of the PRB-1 clarification left no doubt as to the Commission’s rejection of the *Williams* balancing test. When considering the validity of a zoning regulation affecting amateur communications, a municipality must, at an absolute minimum, reasonably accommodate amateur radio communications. Further, any restriction enacted must be the minimum practicable to further the municipality’s legitimate interest. To survive, a regulation must pass a two-pronged test. Does it reasonably accommodate amateur communications? If so, is it the minimum practicable regulation necessary for a legitimate municipal purpose? It is against this backdrop that the most recent amateur antenna cases have been decided.

IV. PRB-1 REVISITED: *PALMER*, *MARCHAND*, AND *BOSSCHER*

From the *Pentel* ruling in 1994 through 2001, no opinions resolving amateur antenna structure litigation were published, leaving uncertainty whether the results in *Pentel* and *Thernes* or the results in *Evans* and *Williams* were to be more common. In late 2001, two decisions adopted the *Pentel* approach to the problem and yielded results favorable to the amateur.¹³⁰ In early 2003, an amateur-adverse decision was reported for the

¹²⁴ PRB-1 Clarification, *supra* note 123, ¶ 6.

¹²⁵ *Id.* ¶ 8.

¹²⁶ *Id.* ¶ 7.

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Palmer v. City of Saratoga Springs*, 180 F. Supp. 2d 379, 384–85 (N.D.N.Y. 2001); *Marchand v. Town of Hudson*, 788 A.2d 250, 254 (N.H. 2001); *see generally* Brennan Price, *A Tale of Two Preemption Policies*, QST, Mar. 2002, at 90–91 (summarizing the aforementioned cases before they were published in the West Reporters). The *Palmer* and *Marchand* cases are discussed, respectively, in Parts IV.A and IV.B, *infra*.

first time since *Evans*,¹³¹ but the opinion relied on both *Pentel* and *Williams* for support.¹³² Despite the lack of unanimity of support for the amateurs' claims, the three cases provide valuable lessons to municipalities and amateurs alike.

A. *Palmer v. City of Saratoga Springs*¹³³

Randall Palmer moved to Saratoga Springs, New York, in 1998, and sought to construct a retractable tower that would measure 47 feet in height when extended.¹³⁴ The Zoning Ordinance of Saratoga Springs provided that “[n]o such antenna . . . shall exceed, in any dimension, twenty (20) feet in height, width or depth” without a special use permit.¹³⁵ More than five months after Palmer applied for such a permit, the Saratoga Springs Planning Board denied his application, finding that Palmer had failed to meet four special use standards:

3: That the public health, safety, welfare or order of the City will not be adversely affected by the proposed use in its location.

6: That the [sic] conservation of the property values and the encouragement of the most appropriate use of the land.

12: That the proposed use will not interfere with the preservation of the general character of neighborhood in which such building is to be placed or such use is to [sic] conducted.

17: Whether the proposed special use provides landscaping and/or other forms of buffeting to protect surrounding land uses.¹³⁶

Palmer filed suit soon thereafter, but the action was held in abeyance after Palmer agreed to provide the Planning Board with more information in exchange for reconsideration of his application.¹³⁷ In addition to providing more information, Palmer agreed to further concessions, offering to reduce the number of antennas on the tower, retract the antenna when not

¹³¹ *Boscher v. Township of Algoma*, 246 F. Supp. 2d 791, 793 (W.D. Mich. 2003) (discussed at Part IV.C, *infra*).

¹³² *See id.* at 800.

¹³³ 180 F. Supp. 2d 379 (N.D.N.Y. 2001).

¹³⁴ *Id.* at 380.

¹³⁵ *Id.* at 380 n.2 (alteration in original).

¹³⁶ *Id.* at 380–81.

¹³⁷ *Id.* at 381.

in use, and install screening to minimize visual impact.¹³⁸ Despite these concessions, the Planning Board asked Palmer to plant nine trees at a cost of \$4,585 and operate his radio only at night.¹³⁹ Palmer agreed to plant four trees at a cost of \$1,160, but declined to curtail his operation to nighttime hours, indicating that the bands on which he wished to operate were more favorable in daylight hours.¹⁴⁰ Finally, in February 2001, more than two years after his initial application, the Planning Board rejected Palmer's application, going so far as to take a gratuitous swipe at the FCC's preemption policy along the way: "The Board[,] excepting for the intrusion of the FCC regulations on local police power[,] would not consider this project acceptable on this specific site because of the site's small size, high visibility within the neighborhood and close proximity of neighboring residences."¹⁴¹ Palmer then continued his lawsuit.¹⁴²

Judge Mordue, in rendering the opinion, acknowledged PRB-1's preemptive effect and proceeded to apply the three-part *Pentel* test to Palmer's case.¹⁴³ Mordue ruled that Saratoga Springs had satisfied the first two prongs: the obligations to consider the application and make factual findings.¹⁴⁴ On the third prong, Saratoga Springs decisively lost, as the court held that "the record here clearly proves that the Planning Board did not attempt to negotiate a satisfactory compromise with Palmer."¹⁴⁵ Judge Mordue's rationale details the lack of good-faith negotiation: "[T]he Planning Board never tried to work out a *satisfactory* compromise with Palmer. Rather, the Planning Board engaged Palmer in a strictly one-sided negotiation consisting of inflexible demands and the construction of hoop after hoop for Palmer to jump through."¹⁴⁶ Mordue noted that Palmer complied with many of the Planning Board's requests for information, and found that the requests Palmer declined to agree to were "unreasonable on their face."¹⁴⁷ Perhaps most persuasively, Mordue cited the Planning Board's own written decision as evidence that compromise was completely off its

¹³⁸ *Id.* at 382.

¹³⁹ *Id.* (error designations in original).

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *Id.* at 383.

¹⁴³ *Id.* at 384–85.

¹⁴⁴ *Id.* at 385.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* (emphasis in original).

¹⁴⁷ *Id.* Among the requests deemed unreasonable:

Palmer refused to only operate his antenna at night because the 20 through 10 meter bands he communicated on were virtually useless after dark. Likewise Palmer refused to spend roughly \$4500 on vegetative screening when \$ 1100 worth of trees would satisfy this demand. Lastly, Palmer refused to give the Planning Board any additional information on the issue of interference for the simple reason that the issue of possible interference was beyond the Board's purview.

radar:

In addition to relying on Palmer's failure to comply with the Planning Board's various mitigation requests . . . the written decision also cites three other untenable grounds justifying the denial. First, the Planning Board faults Palmer for not proving that the fence he agreed to erect around the tower would "adequately" keep children and neighborhood pets from accessing the antenna tower. Second, the Planning Board indicates that Palmer failed to prove that the antenna tower can be operated in a safe manner. These first two grounds not only place upon Palmer the unfair task of debunking the Planning Board's groundless assumptions, but the record indicates the Planning Board never even asked him to address these specific issues. Last, and perhaps most indicative of the Planning Board's rigidity to negotiation, the written decision states that while Palmer agreed to lower the antenna when not in use, that agreement places an "unnecessary burden" on his neighbors to enforce. The Planning Board's reliance on this ground is obviously indefensible and yet another "stretch" to deny Palmer his right to reasonable accommodation.¹⁴⁸

Having found the Planning Board's findings indefensible, Judge Mor-due found for Palmer and took the unusual step of ordering Saratoga Springs to grant Palmer's application.¹⁴⁹ *Palmer* is important for two reasons. First, it validates the *Pentel* approach to determining the validity of an amateur radio zoning restriction. Second, it emphasizes that an overtly hostile and closed-minded zoning authority cannot be found to have met the *Pentel* requirement of attempting to negotiate a satisfactory compromise with the amateur radio operator.

B. *Marchand v. Town of Hudson*¹⁵⁰

Marchand is unique in that the amateur and the town were on the same side.¹⁵¹ It is also unique in that this is the only reported PRB-1 decision by a non-federal court. The amateur in *Marchand*, Jeremy L. Muller, applied for and was granted a building permit to construct three 90-foot towers,

¹⁴⁸ *Id.* at 386.

¹⁴⁹ *Id.* "Normally, the Court would simply instruct the Planning Board to comply with PRB -1. However, given that the Planning Board was already fully apprised of its duties under PRB-1 when it reconsidered Palmer's application, such action would likely be futile." *Id.*

¹⁵⁰ 788 A.2d 250 (N.H. 2001).

¹⁵¹ *See id.* at 251 (noting that defendant town had granted a permit to the intervenor amateur radio operator).

which would total 100 feet in height when antennas were added.¹⁵² Muller's neighbor, Suzanne Marchand, appealed the grant to Hudson's ZBA.¹⁵³ The ZBA held firm, citing PRB-1 as incorporated in New Hampshire's amateur radio antenna statute.¹⁵⁴ Marchand then appealed to a New Hampshire superior court, which held, in a manner reminiscent of *Williams*, that the large scale of Muller's installation "would upset the balance between the federal interest in promoting amateur operations and the legitimate interest of local governments in regulating local zoning matters."¹⁵⁵ The superior court revoked the building permit and ordered Muller to dismantle his towers.¹⁵⁶

Muller and the Town of Hudson appealed on state zoning law and federal preemption grounds.¹⁵⁷ While the New Hampshire Supreme Court held that Muller's installation was of sufficient scope that it was no longer a routinely permitted "accessory use,"¹⁵⁸ it found for Muller and the town on PRB-1 grounds.¹⁵⁹ The court agreed that "the superior court's order to remove all three radio towers, thereby preventing all ham radio operation by Muller, fail[ed] to preserve the FCC's legitimate interest in promoting amateur radio operations."¹⁶⁰ Citing PRB-1 and New Hampshire's codification thereof,¹⁶¹ the court found a "clear directive" in the FCC's statement that "[s]tate and local regulations that operate to preclude amateur communications . . . are in direct conflict with federal objectives and must be preempted."¹⁶² Noting the superior court's balancing language, the supreme court agreed with the Eighth Circuit's *Pentel* finding "that the federal directive requires municipalities to do more."¹⁶³ Therefore, the lower court was found to have applied the zoning ordinance in contravention of PRB-1.¹⁶⁴ Noting *Pentel*'s fact-finding requirement, the supreme court remanded the matter to the Town of Hudson ZBA to determine if the three towers were necessary as a reasonable accommodation of amateur radio

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ *See id.* at 251–52.

¹⁵⁵ *Id.* at 252 (internal quotations omitted).

¹⁵⁶ *Id.*

¹⁵⁷ *Id.* at 252–53.

¹⁵⁸ *Id.*

¹⁵⁹ *Id.* at 253.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² *Id.* at 254.

¹⁶³ *Id.*

¹⁶⁴ *Id.*

communications from Muller's property.¹⁶⁵

Marchand illustrates two propositions. First, an extensive antenna system might be required as a reasonable accommodation of amateur radio communications, and the prohibition of such an installation may be blocked by the "minimum practicable regulation" standard. The inquiry is site specific and use specific. New Hampshire is a heavily wooded, mountainous, largely rural area. The heights sought by Muller might very well have been necessary to overcome obstructing terrain, and the rural, isolated nature of the property probably rendered any aesthetic objections trivial. If multiple antenna towers are sufficiently screened and removed from the property line to render them undetectable, it is difficult to contend that a prohibition on aesthetics grounds constitutes "minimum practicable regulation." Second, *Marchand* indicates that PRB-1 applies not only to municipal zoning boards, but also to state courts when applying zoning law. The requirement of reasonable accommodation reaches all three branches of state and municipal government.

C. *Bosscher v. Township of Algoma*¹⁶⁶

While late 2001 brought two cases with favorable outcomes to amateurs in *Palmer* and *Marchand*, early 2003 saw the *Bosscher* decision, the first reported case with an outcome adverse to the amateur since *Evans*. Without reading the facts of *Bosscher*, one might conclude that judicial confusion over the extent of the PRB-1 preemption continues. However, the unique facts of *Bosscher* belie the presumption of confusion. *Bosscher* is a perfect tutorial for an amateur radio operator who wants to lose his claim.

Judge McKeague opened his opinion with a fairly nice summary of the radio propagation methods key to the case. While his summary is not completely accurate,¹⁶⁷ he nicely described two prominent modes of communication above 50 MHz: simplex communications, characterized by a

¹⁶⁵ *Id.* at 254–55. According to Muller's attorney, the ZBA found on remand that the unique nature of Muller's property and communications needs necessitated the three towers as reasonable accommodation. See e-mail from Mike Raisbeck, Attorney for Muller, to author (Sept. 14, 2004) (on file with the Connecticut Law Review).

¹⁶⁶ 246 F. Supp. 2d 791 (W.D. Mich. 2003).

¹⁶⁷ As an example, Judge McKeague stated that "amateur radio signals 'travel' in many different ways—including bouncing off the sun." *Id.* at 793–94. In fact, the most prevalent mode of amateur radio communication between 3 and 40 MHz is by bouncing signals off the *ionosphere*, a portion of the earth's atmosphere filled with layers of charged gas particles. While the effectiveness of this mode is a function of solar activity (see generally HANDBOOK, *supra* note 5, at 21.3–21.19), radio signals are not bounced off the sun. Judge McKeague is not that far off, however. Amateurs *do* bounce signals off the *moon*. See generally *id.* at 23.48–23.56. Finally, Judge McKeague refers to amateurs as HAMS—as if the contraction "ham" were an acronym. 246 F. Supp. 2d at 793. It is not. See HANDBOOK, *supra* note 5, at 1.1.

direct path from point to point,¹⁶⁸ and communications through repeaters, which are third party, usually automated relay stations.¹⁶⁹ Bosscher, the plaintiff amateur radio operator, lived in Algoma Township, Michigan, 792 feet above sea level.¹⁷⁰ His property was separated from Grand Rapids, Michigan, by a ridge 2.72 miles to the south and 906 feet above sea level.¹⁷¹ In an effort to overcome the obstruction and communicate via simplex with amateur radio operators in Grand Rapids, Bosscher sought a special use permit to construct a 180-foot tall tower on his property.¹⁷² The township's Planning Commission expressed concern about the proposed installation, considered recommendations by Bosscher's engineer, and hired another engineering firm to review those recommendations.¹⁷³ Bosscher's application was ultimately denied, resulting in the case before the District Court.¹⁷⁴

Bosscher brought claims of a due process violation, a First Amendment violation, and a violation of the PRB-1 preemption. The first two claims are beyond the scope of this Comment; suffice it to say that the township was granted summary judgment on both claims.¹⁷⁵ More interesting is the township's summary judgment victory on the PRB-1 preemption claim.

Judge McKeague correctly identified the question to be decided, "whether the Algoma Township Planning Commission, in the application of its ordinances, provided for the reasonable accommodation of amateur radio communications."¹⁷⁶ Holding that the Planning Commission did, McKeague noted that "the record is devoid of any evidence that the Commission's denial . . . will prevent plaintiff from communicating with other amateur operators."¹⁷⁷ The court noted that an attempt to compromise with

¹⁶⁸ "Essential to simplex communication is that the radio signal travel 'line of sight' directly from one operator to another without obstruction by land, trees, or buildings." *Bosscher*, 246 F. Supp. 2d at 794.

¹⁶⁹ "This method allows two operators who cannot establish simplex . . . to communicate . . . [E]ach repeater operates only on a specified frequency. As a result, only one conversation may occur at a time and others . . . must wait their turn." *Id.* There are nearly 20,000 repeaters in operation across the United States and Canada, and the author of this Comment has edited an annual reference publication listing many of them. See generally THE ARRL REPEATER DIRECTORY (Brennan Price ed., 32d ed. 2003).

¹⁷⁰ *Bosscher*, 246 F. Supp. 2d at 794.

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.* at 794–95.

¹⁷⁴ *Id.* at 795.

¹⁷⁵ It likely that PRB-1 does not create an individual civil right, the denial of which results in a due process violation and the triggering of § 1983 liability. See, e.g., *id.* at 796–99. It is also likely that a zoning action restricting an amateur radio installation does not constitute a violation of the First Amendment. See, e.g., *id.* at 799–800.

¹⁷⁶ *Id.* at 800.

¹⁷⁷ *Id.* at 801.

Bosscher, through the suggestion of a crank-up tower, was made.¹⁷⁸ It noted that testimony in the record indicated (correctly) that use of repeaters was the norm, not the exception to simplex communication, in actual practice of amateurs transmitting from disadvantageous locations.¹⁷⁹ Finally, evidence in the record (again correctly) pointed out that Bosscher's proposal was "pie in the sky," unlikely to work at the proposed transmitter power and tower height.¹⁸⁰

In the end, McKeague found that the Planning Commission considered the relevant law, offered compromises, conducted independent assessment of the application, and made detailed findings in support of its denial of Bosscher's application.¹⁸¹ Algoma Township scored a complete victory, but that victory was due to its efforts to make reasonable accommodation and richly assisted by Bosscher's technically dubious request and intransigence when presented with alternatives.

D. *Lessons from Palmer, Marchand, and Bosscher*

Palmer and *Marchand* should leave no doubt that the PRB-1 preemption is alive and well, despite the dearth of reported decisions since *Pentel*. Reasonable accommodation of amateur radio communications is absolutely required when a state or local government applies land use regulations to amateur radio installations. *Marchand* expands this proposition from municipal zoning boards to state courts.

That a court cannot revoke a permit and deny reasonable accommodation stands in stark contrast to the rather bizarre conclusion in *Evans* that the denial of an antenna was a reasonable accommodation. Granted, the Tenth Circuit is a federal court, not a state court, but its wholesale denial of *Evans*'s application constituted a failure to reasonably accommodate amateur communications. That a federal court is allowed to do this when a state court may not is not a satisfying result. The *Marchand* decision rejects the *Evans* approach in favor of *Pentel*, and is substantially more compatible with the FCC's requirement of reasonable accommodation.

However, the district court in *Bosscher* came to the same result—no permit for the amateur. The difference between *Bosscher* and *Evans* was that *Bosscher* not only rejected proposed alternatives; he failed to even put forth a technically sound reason why those alternatives would not work. *Evans* also considered a proposed installation that is comparable to other installations in reported cases. *Bosscher* dealt with a system that was well

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ *Id.* Indeed, there was a suggestion that with a different transmitter allowing for higher power output, even simplex communication might be possible at a lower height, presumably through a phenomenon known as knife-edge diffraction. *Id.*; see also HANDBOOK, *supra* note 5, at 21.3 (discussing knife-edge diffraction).

¹⁸¹ *Bosscher*, 246 F. Supp. 2d at 802.

off the height scale and was unlikely to work even if granted.

Bosscher teaches us that an amateur is well served by having a persuasive technical case for why his proposed installation is necessary as a reasonable accommodation. During any subsequent negotiations, the municipality may propose alternate installations, and the amateur should consider whether they might provide reasonable accommodation as well. While it is easy to feel sympathy for Evans because none of the proposed alternatives would clearly work, it is difficult to feel sorry for Bosscher, because his proposal was unlikely to be effective and he refused to consider alternatives that might have been better for him.

Another critical lesson—well heeded by municipalities and amateurs alike—is to play nice. Saratoga Springs's harassment of Palmer was chided by Judge Mordue and cost the city significant litigation costs. On the other side of the coin, Bosscher pressed for a resolution that the record indicated was technically dubious. He wasted time and money pursuing a highly unlikely dream. There are real costs to hubris on the part of a municipal zoning board or an amateur in a case like this. The fact that there is a paucity of cases in this area indicates that many amateurs and municipalities are able to resolve disputes like these without resorting to litigation. This result is most efficient for all parties, saving the amateur and the municipality's taxpayers the costs of litigation and allowing the amateur to spend more time enjoying the operating privileges of his license (not to mention the rest of his life).

V. STATE EFFORTS TOWARD REASONABLE ACCOMMODATION: STATUTORY GUIDANCE

As of February 2004, twenty states have enacted statutes codifying the essence of the PRB-1 decision into state law.¹⁸² While most of these states merely instruct local governments to comply with PRB-1, four states take a further step and specify heights below which a local government cannot regulate.¹⁸³ The proliferation of these statutes raises three questions. First,

¹⁸² The states are Alaska, ALASKA STAT. § 29.35.141 (Michie 2003); California, CAL. GOV'T CODE § 65850.3 (West 2004); Florida, FLA. STAT. chs. 125.561, 166.0435 (2003); Idaho, IDAHO CODE §§ 55-2901 to 55-2904 (Michie 2004); Indiana, IND. CODE §§ 36-7-5.2-1 to 36-7-5.2-3 (2004); Louisiana, LA. REV. STAT. ANN. § 33:102.1 (West 2004); Maine, ME. REV. STAT. ANN. tit. 30-A, § 3012 (West 2003); Massachusetts, MASS. GEN. LAWS ch. 40A, § 3 (2003); Nevada, NEV. REV. STAT. 278.02085 (Michie 2003); New Hampshire, N.H. REV. STAT. ANN. §§ 674:16–17 (2003); New Mexico, N.M. STAT. ANN. § 5-12-1 (Michie 2003); Oregon, OR. REV. STAT. § 221.295 (2001); Tennessee, TENN. CODE ANN. § 6-54-130 (2004); Texas, TEX. LOC. GOV'T CODE ANN. § 250.002 (Vernon 2003); Utah, UTAH CODE ANN. §§ 10-9-108, 17-27-107 (2003); Virginia, VA. CODE ANN. § 15.2-2293.1 (Michie 2003); Washington, WASH. REV. CODE §§ 35.21.315, 35A.21.260, 36.32.600 (2003); West Virginia, W. VA. CODE §§ 7-1-13, 8-12-5d (2003); Wisconsin, WIS. STAT. § 59.69(4f) (2003); and Wyoming, WYO. STAT. ANN. §§ 15-1-130, 18-2-114 (Michie 2003).

¹⁸³ These states are Alaska, ALASKA STAT. § 29.35.141(b) (prohibiting any restrictions less than 75 feet above ground level on lots smaller than an acre in areas with a population density of more than

since PRB-1 is a federal regulation applicable to all states, aren't such statutes redundant, particularly the majority of statutes that provide no specific instruction as to tower height? Second, does the existence of the state statute alter any federal cause of action an aggrieved amateur radio operator may have? Finally, do de jure minimum heights below which municipalities may not regulate become de facto maximum heights above which an amateur may not build? The body of PRB-1 caselaw suggests answers to the first two questions; the third question is yet to be tested in any of the four states where minimum heights have been established.

A. *Are State Statutes Redundant?*

Zoning is a highly passionate issue.¹⁸⁴ Municipal zoning boards are usually made up of residents of the municipality, many of whom have limited expertise in land use, and each of whom likely has varying ideas of what land uses are important or desirable. Zoning law is largely state law; the federal government rarely intrudes.¹⁸⁵ Many Americans advocate that the federal government should allow states great leeway in governing a wide range of matters, including land use. PRB-1 is counter to this thought. A citizen zoning board member who does not relish the thought of a shiny antenna down the street may become irate when told that the FCC requires his municipality to accommodate it.¹⁸⁶ Presumably, state regulation is more acceptable to those who advocate for a smaller federal government, since zoning and municipal law is generally the purview of state governments. If New York had enacted a statute on point, perhaps Saratoga Springs would not have wasted its taxpayers' money in litigating the *Palmer* case. For this purely psychological reason, state statutes can serve a practical purpose, even if they do not add to the federal substantive law.

B. *Do State Statutes Affect the Federal Cause of Action?*

Another reason why a state statute might be desirable to amateurs is

120 per square mile, less than 140 feet on lots an acre or larger in areas with a population density of more than 120 per square mile, or less than 200 feet in areas with a population density of 120 or less per square mile); Oregon, OR. REV. STAT. § 221.295 (prohibiting restrictions to 70 feet or lower 'unless the restriction is necessary to achieve a clearly defined health, safety, or aesthetic objective of the city or county'); Virginia, VA. CODE ANN. § 15.2-2293.1 (prohibiting restrictions less than 200 feet above ground level in areas with 120 or fewer persons per square mile according to the 1990 United States census and prohibiting restrictions of less than 75 feet anywhere); and Wyoming, WYO. STAT. ANN. §§ 15-1-130, 18-2-114 (prohibiting restrictions of less than 70 feet above ground level).

¹⁸⁴ See R. Perry Sentell, Jr., *Georgia Local Government Law: A Reflection on Thirty Surveys*, 46 MERCER L. REV. 1, 16 (1994) ('[Z]oning controversies frequently arise in heated factual contexts, exuding passionate convictions and human emotions. Those controversies contribute considerable color to the local government corpus.').

¹⁸⁵ Indeed, the FCC describes its PRB-1 preemption as 'limited.' PRB -1, *supra* note 32, ¶ 24.

¹⁸⁶ The Saratoga Springs Planning Board was not shy in expressing its collective ire with the PRB-1 preemption. See *supra* text accompanying note 141.

the availability of a state cause of action against a noncompliant municipality. The amateur has two arrows in his quiver instead of one.¹⁸⁷ An aggrieved amateur may choose to use either of them. But what if she decides to use both of them? This has been tested in the Massachusetts case of *Chedester v. Town of Whately*,¹⁸⁸ in which a federal district court has stayed litigation of a PRB-1 claim in order to allow a claim under the Massachusetts statute to proceed.¹⁸⁹

Chedester sued his town and a neighbor after the town's Zoning Board of Appeals, upon the neighbor's petition, revoked a building permit for a 140-foot amateur antenna tower issued to Chedester.¹⁹⁰ He filed simultaneous actions in state and federal court—both claiming violations of the Massachusetts amateur radio statute, and the federal PRB-1 regulation.¹⁹¹ The only difference between the actions was the statute under which the actions were claimed to arise.¹⁹² The Massachusetts complaint cited the Massachusetts declaratory judgment statute,¹⁹³ and the federal complaint—the one before the district court—cited the federal Declaratory Judgment Act.¹⁹⁴ Chedester's neighbors—and later the town—moved to stay the federal court proceedings.¹⁹⁵

Citing *Brillhart v. Excess Insurance Co. of America*,¹⁹⁶ the court granted the stay.¹⁹⁷ *Brillhart* establishes a presumption in favor of a stay: “[o]rdinarily it would be uneconomical as well as vexatious for a federal court to proceed in a declaratory judgment suit where another suit is pending in a state court presenting the same issues, not governed by federal law, between the same parties.”¹⁹⁸ Chedester argued—not without merit, the court found—that the case was governed exclusively by federal law and that *Brillhart* counseled against staying proceedings when state law was not at issue.¹⁹⁹ While acknowledging the presence of a PRB-1 equivalent in Massachusetts state law, Chedester argued that the lack of any appellate decisions regarding Massachusetts's amateur radio antenna statute would

¹⁸⁷ For example, in *Marchand v. Town of Hudson*, Muller used—and the New Hampshire Supreme Court cited in his favor—both PRB-1 and its New Hampshire statutory codification. See 788 A.2d 250, 253 (N.H. 2001).

¹⁸⁸ 279 F. Supp. 2d 53 (D. Mass. 2003).

¹⁸⁹ *Id.* at 54.

¹⁹⁰ *Id.* at 54–55.

¹⁹¹ *Id.* at 55.

¹⁹² *Id.*

¹⁹³ *Id.* (citing MASS. GEN. LAWS ch. 231A, § 1 (2003)).

¹⁹⁴ *Id.* (citing 28 U.S.C. § 2201 (2000); FED. R. CIV. P. 57).

¹⁹⁵ *Id.*

¹⁹⁶ 316 U.S. 491 (1942).

¹⁹⁷ *Chedester*, 279 F. Supp. 2d at 57.

¹⁹⁸ *Brillhart*, 316 U.S. at 495; *Chedester*, 279 F. Supp. 2d at 56.

¹⁹⁹ *Chedester*, 279 F. Supp. 2d at 57.

put the state court “in the awkward position of having to rely on case law interpreting [the federal PRB-1 regulation].”²⁰⁰

Nevertheless, the district court granted the stay, first noting that it had no jurisdiction over the state law appeal of the ZBA’s decision.²⁰¹ Chedester’s claims that he “initiated the state court action merely to protect himself from the short twenty-day limitations period for filing such an appeal” were acknowledged but dismissed.²⁰² “Plaintiff cannot overcome the fact that this court has no jurisdiction over the zoning appeal itself.”²⁰³ Next, the district court cited *Albertson v. Millard*²⁰⁴ for the proposition that “[i]nterpretation of state legislation is primarily the function of state authorities, judicial and administrative.”²⁰⁵ The court found *Albertson* particularly persuasive since that case, like the one before it, stayed a proceeding where the state statute at issue had not yet been interpreted by state courts.²⁰⁶ Finally, the district court noted the plain language of the PRB-1 regulation itself: “[it] leaves the initial regulation of amateur radio antenna structures to ‘state and local’ authorities.”²⁰⁷ While acknowledging that such regulation was subject to “certain general limits,”²⁰⁸ the court felt that a state court determination of “whether the Town’s bylaw comports with the state statute” was prudent.²⁰⁹ For these reasons and for reasons of “judicial economy and comity,”²¹⁰ the stay was granted.

Chedester suggests that an aggrieved amateur radio operator should carefully choose her forum when multiple forums are available. As sparse as reported federal caselaw is in this area, it is abundant when compared to decisions interpreting state amateur radio statutes. With the exception of the anomalous *Williams*, *Evans*, and *Bosscher* decisions, the federal decisions are favorable to the amateur, and the addition of a state claim might confuse the federal issue—or, as in the *Chedester* case, shuttle the federal issue into a state forum. If an amateur feels uncomfortable pursuing the case in a state forum with no precedent on the state law, she may wish to consider waiving any state law claims, or at least excluding them from federal complaints.

²⁰⁰ *Id.*

²⁰¹ *Id.*

²⁰² *Id.* at 57 n.4.

²⁰³ *Id.*

²⁰⁴ 345 U.S. 242 (1953).

²⁰⁵ *Id.* at 244; *Chedester*, 279 F. Supp. 2d at 57.

²⁰⁶ *Chedester*, 279 F. Supp. 2d at 57.

²⁰⁷ *Id.* at 58 (quoting 47 C.F.R. § 97.15(b) (2003)).

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ *Id.* (internal quotation marks omitted).

C. *Do De Jure Minimum Heights become De Facto Maximum Heights?*

The minority adoption of heights below which a municipality may not regulate has been criticized by at least one prominent amateur radio attorney.²¹¹ There are two schools of thought on this question. By establishing heights on the order of 70 feet or above, amateurs will be able to erect structures sufficient for most amateur radio activities. In the absence of an extenuating circumstance, such as a lot surrounded by hills or very tall obstructing trees, amateurs in these states will easily be able to gain approval for a system that meets their needs. However, a municipality might be more resistant to a proposal above the statutory minimum, suggesting that if 70 feet is adequate for everyone else, it will be adequate for the amateur who wants a higher structure. The problem arises when an extenuating circumstance, such as one of those described above, turns the amateur's want into a need if effective communications are to be achieved.

While it remains to be seen if the de jure minimum heights become de facto maximum heights in Alaska, Oregon, Virginia, and Wyoming, it will take a unique test to find this out, as tower heights of 70 feet or more are ample for most amateur installations.²¹² In the interim, amateurs, municipalities, and legislators will simply have to weigh all of these factors when considering whether to support or oppose new state statutory codifications of PRB-1. Regardless of the presence of such legislation within a state, amateurs and municipalities should remember that PRB-1 applies nationwide. The requirement of reasonable accommodation is mandatory in all areas under FCC jurisdiction. Amateurs in a state where they have generally friendly relations with various local zoning authorities may prefer the flexibility of the broad federal language. Other amateurs may desire specific instructions from their state to its local governments. The varying preferences do not make PRB-1 more applicable in one part of the United States than the other.

VI. CONCLUSION

While the number of reported cases relating to the PRB-1 preemption is somewhat limited, the recent cases and the 1999 PRB-1 clarification make a few fundamental concepts quite clear. A municipality's obligation

²¹¹ See HOPENGARTEN, *supra* note 80, at B.12 (encouraging advocates of new state statutes to "keep open the path for hams to apply for—and have a reasonable chance of being granted—heights over [the statutory minimum]").

²¹² Indeed, of the reported cases where an amateur has successfully utilized PRB-1, only the *Marchand* case involved towers above 70 feet. See 788 A.2d at 251. However, certain types of operation may require greater heights. For instance, a groundplane vertical antenna is ideally $234/f$ feet in height from ground to tip, where f is the frequency of desired operation in MHz. HANDBOOK, *supra* note 5, at 20.19. For operation at 1.820 MHz in the 160-meter amateur band, $234/1.820 \bullet 129$ feet. An amateur operating on this band with insufficient lot size to erect a 258-foot horizontal half-wave dipole may therefore require a 129-foot height as a reasonable accommodation for the alternate design.

to reasonably accommodate amateur communications is clear. It may not preclude amateur communications, and any regulation of an amateur antenna or antenna support structure must be crafted toward the minimum level practical to accomplish the municipality's legitimate purpose. On the other hand, amateurs must acknowledge that municipalities may have legitimate purposes for their regulation, and must entertain suggestions that will meet those purposes and fulfill their communications needs.

As one can see at the beginning of this Comment, amateur radio may be as unfamiliar to untrained lawyers and zoning personnel as law and zoning may be to an amateur operator. While the cases discussed here are interesting, one wonders if any of them would have occurred had the parties worked toward understanding their obligations and the others' concerns. While statutory directives to municipalities may help toward that understanding, they are no substitute for realism by municipalities, amateurs, and their counsel.

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