

Changes Proposed to Amateur Radio Zoning in Baltimore County

Based on a presentation to the
Baltimore Amateur Radio Club

16 April 2008

Field Day 2007

- Tom, N3IJ and Bud, W3LL, had a brief conversation about the need to remove defects from the Baltimore County zoning regulations governing Amateur Radio.
 - The objective was *only* to reduce chances of the kind of abusive lawsuit Bud experienced. Any ham can have a hostile neighbor.
 - In other respects, the ordinance was tolerable, although not ideal. Minimal changes were thought to be easier to pass.
- Tom agreed to draft new language to show his councilman.
 - The earliest meeting Tom's councilman, Vince Gardina (D-5), could schedule was in September.
 - Before reporting on that meeting, I'll discuss Federal policy, the purpose of zoning, and the ordinance and amendments.

Federal Policy

- P.L. 103-408 (1994)
 - “Reasonable accommodation should be made for the effective operation of amateur radio from residences, private vehicles and public areas, and . . . regulation at all levels of government should facilitate and encourage amateur radio as a public benefit.”
- FCC’s PRB-1 (47 CFR 97.15, 1985; FCC 85-506)
 - “Local 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.”

What is Zoning?

“Zoning is a system of land use regulation that controls the physical development of land. It is a legal mechanism by which local government is able to regulate an owner’s right to use privately owned land for the sake of protecting the public health, safety, and/or general welfare.”

<http://baltimorecountymd.gov/Agencies/planning/zoning/index.html>

Before your building permit can be approved in Baltimore County, Zoning must sign off. This is in addition to anything required by your HOA.

You may request a variance, but in most cases a hearing is required.

Zoning Prevents Surprises

- In 2004, Montgomery County had no amateur antenna zoning regulations.
 - A ham installed 5 190-ft rotating towers on a 40-acre property near Poolesville.
 - The neighbors were angry because (they said) they were surprised.
 - A feud resulted. The neighbors' lawsuits have no merit, but they harassed the ham with suits all the way to the US Supreme Court, which recently declined to hear their appeal.
- Outcomes
 - Montgomery now has a 67-foot height limit.
 - Montgomery legislators are not friendly to amateur antenna legislation.
- This couldn't happen to a ham in Baltimore County.
 - Requests for variances require a sign offering a hearing to be posted on the property for 15 days. Neighbors cannot claim they were surprised.

How Zoning Protects Us

- In Baltimore County, we avoid political trouble by guaranteeing that neighbors will be consulted in specific extreme but rare cases.
- Clarity is essential to remove the opportunity for harassing litigation. *Ambiguity is no help.*
 - Ambiguity gave W3LL's adversary an opportunity for his suit. "Surprise" was his pretext.
- We must draft the legislation before others draft it for us.

Baltimore County Zoning Code

Section 426a (1998)

- A. A radio operator antenna and related equipment, including any supporting structure, is considered an accessory structure or use and is permitted by right in any zone if the radio antenna and the related equipment meets the requirements of this section.
- B. A radio operator antenna shall be operated by an amateur radio operator who is licensed by the Federal Communications Commission and whose domicile is on the lot where the antenna and the related equipment is placed.
- C. A supporting structure for a radio operator antenna may not be located within 20 feet of any property line.
- D. A radio operator antenna may not extend closer than the front building line to any street on which the lot fronts.
- E. A radio operator antenna may not be higher than the lesser of 100 feet or the horizontal distance to the nearest property line above grade level.

Why 426a Needs Amending

- Recent litigation exposed ambiguities; also a probable drafting error.
 - Section D requires a variance for an unobtrusive wire antenna in a tree. Strange.
 - Very likely that the authors intended to keep structures out of front yards; possible that they wished to keep elements of large arrays from overhanging the front wall; *very unlikely* that they expected a ham to get a zoning variance before attaching a wire to a tree. Probably a drafting error in 1998. Today, another opportunity for someone to harass an amateur.
 - Section E was found by zoning authorities and a hearing examiner to be unnecessarily difficult to interpret and administer.
- Recommended amendments preserve existing height and setback restrictions while enhancing clarity and slightly relaxing one restriction in Section D.
- With these amendments, 426a will conform better to national telecommunications policy in 47 CFR 97.15 and P.L. 103-408:
 - “Must . . . accommodate reasonably amateur communications, and . . . represent the minimum practicable regulation to accomplish the local authority’s legitimate purpose,”
 - The better to “facilitate and encourage amateur radio as a public benefit” to Baltimore County.

Corrections Proposed for Baltimore County Zoning Code S. 426A

(Final version after initial meeting, Executive reviews)

Additions in caps; deletions in brackets.

D. A radio operator antenna, **UNLESS MADE OF WIRE NO LARGER THAN THE SMALLEST SIZE SPECIFIED FOR THE PURPOSE IN THE ELECTRICAL CODE**, may not extend closer than the front building line to any street on which the lot fronts.

{Note: Wire size in NEC Table 810.52 ranges from AWG 10 to 14, depending on length (more or less than 150 ft.) and material (copper vs. Copperweld).}

E. A **SUPPORTING STRUCTURE PLUS ATTACHMENTS FOR A** radio operator antenna may not be higher than the lesser of 100 feet or the horizontal distance **FROM THE BASE OF THE STRUCTURE** to the nearest property line [above] AT grade level.

Outcome of 26 Sep 07 Meeting with Councilman Gardina

- N3IJ's councilman said on 26 September he would await our revisions and then circulate them among the council.
 - He requested the provisions to include “attachments” in the height and specifying the size of wire in the front yard.
 - We countered another suggestion by referring to “minimum practicable regulation” in PRB-1.
 - He received the revisions in October.
- In December, his assistant said our proposal had been sent to the county Office of IT for an impact statement.
- After much follow up, in March N3IJ requested another meeting, held on 7 April.

Outcome of 7 April Meeting

- Mr. Gardina urged us to gauge sentiment by seeking co-sponsors on the council.
- He had received
 - a memo from the Director of IT saying that there would be no problems with county radio communications.
 - a verbal approval from Donald T. Rascoe, Deputy Director of Plans and Permits. We expect to have it in writing soon to show the councilmen when we seek support.
- Generally, we get more attention from legislators when a constituent arranges the meeting and opens and concludes it.
 - Bud W3LL is an experienced presenter. Elected officials are interested in clarifying laws that waste public resources because they are ambiguous.
 - It helps when Bud can show constituent support for the changes.

What's Next

- After all the councilmen have an opportunity to become co-sponsors – or at least express support – W3LL and N3IJ will report back to Mr. Gardina.

Reference Material for Councilmen

An twelve-page handout, including a title page and a list of contacts, plus:

- The following six pages about amateur radio;
- Three pages about 426a you have already seen.
- A request for co-sponsorship.

Amateur Radio Background

- Regulated by U.S. government since the first license examinations in 1912.
- More than 10,000 in Maryland, more than 600,000 in the U.S., almost 3 million worldwide, under international agreements.
- Official purposes (47 CFR 97.1):
 - Emergency communications
 - Experimentation and “advancement of the radio art,”
 - Improving regulation
 - Training operators, technicians and electronics experts
 - Enhancing international goodwill.

Why “Amateur” Radio?

- Until the 1980s, most of the world’s telecommunications services were provided by national government monopolies.
 - The only way they would only allow individual experimenters to use the airwaves was to prohibit them from competing with the official service.
- We have always been “amateurs,” not because of a lack of skill or training, but because we are prohibited by international agreement from accepting compensation.

Amateur Radio in Emergencies

- In Maryland
 - 21 Maryland jurisdictions have incorporated Amateur Radio volunteers into emergency communications, with regular drills.
 - Amateurs provided communications and damage reports to local government following the 2001 tornados in Laurel and College Park.
 - After the 2002 LaPlata tornado, amateurs provided communications to the hospital and local government agencies.
 - During Hurricane Isabel in 2003, more than 150 Amateur Radio operators in counties across the state deployed in trained units. They supported fire, police, EMS, and disaster relief agencies (such as Red Cross shelters) and provided weather data to the National Hurricane Center.
- Gulf Hurricanes of 2005
 - Favorable mention on page 177 of bipartisan Congressional post-hurricane report, “A Failure of Initiative.” (katrina.house.gov)
 - News stories in *Christian Science Monitor* and other papers.
- **Amateur-radio.home.comcast.net** contains details of more than 100 incidents in the past ten years.

Developing Scientists and Engineers

- Some inventors who started as teenaged amateur radio operators:
 - Howard Armstrong – AM radio receivers and the FM broadcasting system
 - Grote Reber - Co-inventor, radio astronomy
 - David Packard - Co-founder, Hewlett-Packard Corp.
 - Wilson Greatbatch - Cardiac pacemaker
 - Steve Wozniak – Apple I computer
 - Paul Flaherty - co-inventor, Alta Vista search engine
 - Klein S. Gilhousen - Co-founder, Qualcomm Corp. (digital cellphones)
- Winners of the Nobel prize who had been teenaged amateurs:
 - Michael S. Brown, M.D., (1983) - Cholesterol metabolism
 - Jack Kilby (shared, 2000) - Integrated circuit
 - Joseph Taylor & Russell Hulse (1993) - Binary pulsars
- Michael Griffin, NR3A, Administrator of NASA, credits his early interest in science to being a teenaged amateur.
- U.S. Naval Academy uses Amateur Radio to teach telecommunications engineering.
 - Students have launched 5 communications satellites.

People-to-People Diplomacy

- Almost 3 million licensed radio amateurs operate in more than 150 countries.
- In many nations the people most likely to have social contact with Americans are radio amateurs.
 - Amateurs preserve a friendly face for the U.S. when governments disagree.

Federal Policy

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