Ham Radio and the Community Association
Unintended Consequences of H.R. 1301 and S. 1685

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H.R. 1301 and S.1685 Unintended Negative Consequences

H.R. 1301 and S.1685 in the 114th Congress directs the Federal Communications Commission (FCC) to amend regulations concerning the height and dimensions of station antenna structures to prohibit a private land use restriction from applying to amateur service communications if the restriction precludes such communications, fails to accommodate such communications, or does not constitute the minimum practicable restriction to accomplish the legitimate purpose of the private entity seeking to enforce the restriction.

By allowing amateur radio licensees (hams[1]) unfettered access on their lots contained within community associations, for the installation of any form of exterior mast, tower or antenna (along with the associated ancillary equipment for its operation), will have unintended negative consequences for those who have made the choice to live in communities with restrictions on just such activities. Prior to exploring these consequences, let us first look at the overall ham radio hobby.

About the Ham Radio Hobby

According to the American Radio Relay League (ARRL), "Amateur Radio (ham radio) is a popular hobby and service that brings people, electronics and communication together. People use ham radio to talk across town, around the world, or even into space, all without the Internet or cell phones. It's fun, social, educational, and can be a lifeline during times of need."

As stated above, amateurs use their radio to talk with friends around town or across the country. It passes the time while commuting, provides a lifeline while enjoying the outdoors, and provides an activity for active retirees. Others may volunteer with a local public service agency such as law enforcement, fire, or other governmental agencies. The Red Cross and Salvation Army rely on amateur radio operators to support their missions. There are thousands of organized communication gathering spots, or "nets", where hams check-in. These nets are organized around sub-hobbies of ham radio. For example, families sailing out to sea may check into a weather or health and welfare net. Retired military vets may check-in to a net to "rag chew" or talk about the events of the day.

During the events of September 11, 2001, hams were invaluable working from ground zero for weeks afterwards augmenting communications. The same thing happens every year during hurricanes, earthquakes, floods, and other natural (and manmade) disasters.

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[1] In this paper the terms "ham," "licensee," and "amateur radio operator" are synonymous. ARRL reports the term "ham" came from "the early days of radio when many of the amateur stations were very powerful. Two amateurs, working each other across town, could effectively jam all the other operations in the area. Frustrated commercial operators would refer to the radio interference by calling them "hams." Amateurs, possibly unfamiliar with the real meaning of the term, picked it up and applied it to themselves. As the years advanced, the original meaning has completely disappeared." Authors note: These same interference issues persist today when hams do not tune their equipment properly and nearby neighbors have poorly shielded electronics such as computer speakers or touch sensor lamps.

The spirit of amateur radio has always been the ingenuity of hams to harness whatever resources are available to them and to communicate despite challenges. Older hams built their first radios with minimal resources using salvaged parts from mentors, known as ”Elmer’s”. Many hams started in the hobby with radios passed down from other ham users. Creativity and ingenuity usually has worked well for most hams over fancy equipment and tall towers.

Moreover, amateur radio is evolving. Through the use of small radios the size of cell phones, hams can talk to other hams around the world through regional repeaters which jump the signal onto the internet and output in another repeater location. These digital types of communication have helped to stem the decline of licensed amateurs.

So how can a hobby that does so much good have a potential negative impact on community associations?

There are several areas of concern if associations are stripped of their ability to enforce their governing documents.

What is an Amateur Radio Station?

Let us look at what constitutes a typical amateur radio station. This is the type of ham radio station that would require a mast or tower to communicate long distances.

Radio- (Transceiver with or without an amplifier) This is located in the ham radio operator’s “shack” and may have a battery back-up, solar panels or a portable generator.

Feedline- This is the cable that connects the radio to the antenna. This cable (which can look like a long heavy-duty extension cord) needs to be placed between the radio and the antenna. This is not always done in a way where it is hidden. It may be draped like a clothesline in the air or simply laid on the ground. This could impact the community association by being unsightly and unsafe if not properly shielded, labeled and placed in a way no one can touch or disturb it. In addition some feedlines are what hams call ‘ladder lines’ which are open wire transmission lines and these feedlines are much larger than coaxial cabling. Although not mentioned in the legislation, most if not all masts and towers need to have a radio signal fed to it via a feedline. Many of the masts and towers also require electricity to rotate the antenna into position, much like a television mast rotator. There may be electronic equipment installed on the tower or mast in conjunction with the antenna that can contribute to poor aesthetics.

Mast/Tower- The difference between a mast and a tower is typically a mast needs guy wires which are tensioned cables to add stability to free-standing structures, and a freestanding tower. A big concern here is safety. When a ham installs his or her antenna system, no one is required to inspect the installation for safety. There are often guy wires running from the tower to the ground which can be unsightly and hazardous if not properly marked. Guyed masts are cheaper to build than towers, so they are more common. They also need additional land so they are better suited to rural areas, not community associations.

Depending on the jurisdiction, the amateur may have to get a permit or zoning variance for a large tower, but absent those situations, no one is there to ensure the set-up is legal and safe. Even if there are permits required, the jurisdiction is only interested in ensuring the regulations for zoning are met, not radio frequency (RF) interference or electrical safety. In addition lighting may

need to be installed on the mast or tower for aviation. Masts and towers also pose hazards to birds.

Finally, the amount of concrete needed for the foundation of a large tower is expensive and difficult to remove once the amateur is no longer using the tower.

Antennas- These take many shapes and forms. Some are verticals, meaning much like a Citizen's Band (CB Radio) whip truckers use to a vertical multi-band high frequency (HF) antenna that may be 10 or 20 feet tall by itself or installed higher up on a tower or mast. Other antennas are simply long lengths of wire (Di-poles are one type) fed by the feedline in the middle or one of the antenna wire ends. It is vitally important that the antenna be installed in a manner whereby it cannot be touched while the radio is transmitting. Dangerous voltages can radiate through these feedlines and antennas. If the antenna is properly installed on a tower or mast, then it will be difficult for a person to touch it unintentionally. However if the wind blows down a section of the antenna or feedline or the coaxial cable feedline becomes exposed, dangerous voltages could endanger anyone who touches it while the radio is transmitting.

Two Ham Radio Stations in Action

Traditionally and notwithstanding the new digital modes, in order for hams to communicate great distances there is a balance between power and antenna efficiency and placement. A ham could have a radio with an amplifier delivering 1,000 watts utilizing a small antenna and talk from coast to coast, while another ham may have only 100 watts and have a tower with a beam (large yagi antenna similar to an old fashioned television antenna, just much bigger) in their backyard that is 30 feet high. Both have their advantages and disadvantages.

In the former example, the ham with the smaller antenna may seem the better operator, not needing a large unsightly tower, however operating a radio with more wattage can cause interference of the electronics of neighbors up to several hundred feet away. This RF interference can manifest itself in many unintentional ways like turning on touch sensor lamps and causing bleed through on phone lines, computer speakers or stereo speaker systems.

In the latter example, lower transmitting power with a larger tower and antenna, may not be the bleed-through on RF, but the antenna, unless on a rural farm, would be unsightly to most association members in a multi-family neighborhood or even a planned community with large yards.

In both cases, the attributes that drive many people to community associations, such as shared amenities, lower cost multi-family housing in urban areas, and proximity to transportation hubs, are antithetical to the equipment needed for many hams to communicate. Between the potential for RF causing disturbances in neighboring homes and the large unsightly towers and antennas needed for long distance communicating, the community association must have the ability to regulate the placement of towers and antennas as well as the operating practices of ham radio operators so that the quiet enjoyment of all of the members is achieved.

In almost every locality in the United States, there are masts and towers used for antennas connected to repeaters. As mentioned above, If a ham wanted to install a tall antenna or tower with antenna that is unsightly to use to support a repeater hosting a net he/she is the trustee for; under this proposed bill, this would be entirely legal and the association's board could do nothing about it. That means the community association members are forced to look at a tall unsightly

mast or tower that is being used by hams throughout the community with no connection to the community association hosting the tower.

Ham Radio and Community Association Data

Community Associations Institute (CAI) conducted a survey in 2014 to ask homeowners and community association managers if their associations or allow amateur radio towers in their communities. The survey had 888 respondents representing at least that many neighborhoods from 32 states and the District of Columbia.
According to the data:

- **95 percent** of respondents **believe their architectural covenants preserve and protect their property values** and the local housing market.
- **91 percent** of the respondents indicated their community **has not denied** requests for installation of a Ham radio antenna or tower or they are unsure of denial; 9 percent indicate they have denied a request.
- **81 percent** of the respondents indicated **their community has never relied on amateur radios communication during a local disaster**; 5 percent have and 14 percent are unsure.
- **78 percent** of respondents indicated they **do not believe amateur radio operators should be exempt from community association covenants**. 11percent are unsure.

Ham Radio Users Serving the Public Interest Do Not Need this Legislation

The ARRL in H.R. 1301 and S.1685 state the following with respect to licensees and having their amateur radio stations at their residence:

"There is a strong Federal interest in the effective performance of amateur radio stations established at the residences of licensees."

This is not true. Amateur radio licensees who volunteer their time in the public interest in most cases use radio gear that is located in their vehicle, or in a portable set-up whereby it can be used at the scene where the service is required. This is because most events that use amateur radio licensees for communication tasks are local events. Wildfires, earthquakes, missing persons, hurricanes and tornados, to name a few, all require the ham to report to a location other than their residence. Licensees who volunteer their time have ready-to-go radio kits, or "go-bags", with portable radios, batteries, generators, portable masts and antennas, and other equipment available to be used anywhere. These local events usually rely on short distance communications not always requiring a large tower or mast. That is what makes ham radio so special, is that these volunteers are self-sufficient with batteries, generators and solar panels and able to work for days at a time under trying conditions. There may be limited applications whereby a 30-foot tower with antenna may be useful, but if that level of equipment is needed to perform a communication task, this specialized equipment is generally installed safely at the public service agency location, or at the ham radio club, or other site better suited for the job. Many of these same organizations have response vehicles and trailers with the operating equipment built-in. Fixed sites used in emergencies need to be accessible 24 hours per day without disturbing others. In addition a site with ample parking for staging shift workers (volunteers) around the clock is required. These sites

often have office or conferencing facilities for the agency command. This is not a task suited to a lone ham's residence, especially in a community association.

Moreover, ham radio volunteers are often the first responders during a major disaster or other event needing emergency communications. The ham will set up portable equipment to provide communications as needed in the early stages of an event. In most cases, this is a transient operation and the ham is soon replaced with professionals from the served agency who bring in their proprietary communication equipment.

There are lone "arm-chair" hams, or hams without a "shack" or dedicated operating station that may monitor these activities and it is interesting to do so, but the action in communication rests with the served agency, not a ham alone in his or her residence. This is the definition of the ham radio hobby, and this hobby would not rise to the level of prohibiting a community association's obligation to enforce their governing documents.

There are tasks amateur radio operators perform for the benefit of segments of the public, but they do not rise to the level of removing the ability of community associations to enforce their governing documents.

Other citizens who work in the public interest and do important work for the broader community, do not burden their neighbors with the tools of their trades. For example paramedics and EMTs do not drive home ambulances. Parked tow trucks are not a common sight in community associations, and the same goes for law enforcement vehicles. These are all important jobs in the public service that require specialized tools, and the community at large survives without the need to restrict community associations from enforcing their governing documents.

Property Values and Housing Recovery Will Decline

The installation of a large mast or tower on a private lot in a planned community could impact the property values for the neighborhood and overall community association. When the board of directors have no control over how architectural elements are designed and installed, the uniformity and aesthetic flow of the community will be destroyed. In a lot of cases, community associations are the first homes of Americans who benefit from the lower housing cost. This investment is usually the single biggest purchase families will make. The diminution of their home values due to an unsightly mast or tower nearby takes the power out of the American dream.

As the housing market is still limping along in recovery of property values, the U.S. economy relies on the community association housing model – which makes up approximately 25 percent - of the housing market to add stability to the economic recovery.

Liability Concerns for Amateur Radio Licensee and Community Associations

Many masts and towers when installed will be taller than the width of the yard they are contained in. I have always used the rule of thumb that if the mast, tower, or antenna, tipped over and it would touch a residence, neighbor's yard, or a power line, than it should not be installed. However, this is not a regulation, and a tall tower or mast under this legislation could be installed

on a lot with the potential for serious damage to a neighbor's home or yard. Additionally, there is no provision for the amateur radio licensee to have the appropriate insurance coverage.

Community associations have a responsibility to ensure safety on common property. Further, community associations have been held responsible, in court, to ensure peaceful enjoyment for homeowners in their community. As mentioned earlier in the paper, the ARRL reports the term "ham" came from "the early days of radio when many of the amateur stations were very powerful. Two amateurs, working each other across town, could effectively jam all the other operations in the area. Frustrated commercial operators would refer to the ham radio interference by calling them "hams." Amateurs, possibly unfamiliar with the real meaning of the term, picked it up and applied it to themselves. As the years advanced, the original meaning has completely disappeared."

These same interference issues persist today when hams do not tune their equipment properly and nearby neighbors have poorly shielded electronics such as computer speakers or touch sensor lamps.

Ham Radio and Private Contracts; Federal Communications Commission (FCC) Released Statements on Ham Radio and Community Associations

The FCC has expressly rejected prior petitions to set aside community association's covenants, conditions and restrictions (CC&Rs) on behalf of amateur radio operators on numerous occasions – most recently in 2012.

In a report released August 2012, the FCC stated "We do not see a compelling reason for the Commission to revisit its previous determination that preemption should be expanded to CC&Rs."[2]

In FCC Memorandum Opinion and Order 85-506, known as PRB-1, the FCC declined to override CC&Rs that may contain restrictions or guidelines on amateur radio operations. The FCC wrote "Since these restrictive covenants are contractual agreements between private parties, they are not generally a matter of concern to the Commission."[3]

The FCC further commented in its opinion that "Purchasers or lessees are free to choose whether they wish to reside where such restrictions on amateur antennas are in effect or settle elsewhere."[4]

Finally, the Commission further commented in a footnote in its opinion that "We reiterate that our ruling herein does not reach restrictive covenants in private contractual agreements. Such agreements are voluntarily entered into by the buyer or tenant when the agreement is executed and do not usually concern this Commission."

[2] FCC Report GN Docket No. 12-91.
[3] FCC Memorandum Opinion and Order 85-506, Paragraph 7.
[4] Ibid, Paragraph 9.

An Issue of Private Land Use

Private land use covenants are the foundation of the community association model of housing. According to research conducted by IBOPE Zogby International, homeowners purchase in a community association based on overall neighborhood attractiveness, association property maintenance services, and the protection of property values.[5]

This survey also reported that 76 percent of association residents found that association rules and covenants protect and enhance the value of their community and property.

This includes architectural guidelines enforced within these communities. A private contractual relationship exists between each owner or resident within an association and the association. These parties have the legitimate expectation of receiving the services and benefits in exchange for assessments as part of this agreement. This is reflected in the survey's finding that an overwhelming 86 percent of association residents have an unambiguous preference to retain control over land use policies within their community.

Association Covenants Provide for Amateur Radio Communications

The majority of community associations have broad architectural rules that apply to all structures and properties within the association. These restrictions may cover the exterior of homes, vegetation, and other property improvements. In general, most association architectural rules will permit variations, but require the approval of an architectural review committee or of the association governing board. The review process applies equally to all homeowners for all variations from association rules and restrictions.

As an example, a typical architectural restriction may require that no structure of any type be constructed on any lot without the prior approval of the architectural review committee or governing board. This permits individual residents to request variations from community standards, but importantly protects the rights of all other residents who may be affected by the variation. The process of building consensus within the community and among neighbors for the approval of a variation from community standards is longstanding, well understood, and validated by State law.

In fact, this process is so well known for the approval of architectural variances of all types that amateur radio enthusiasts are urged to work with their community association to obtain approval to install equipment and other external devices. For example, the ARRL has prepared an extensive presentation for amateur radio operators to educate and persuade community association boards and architectural review committees of the benefits of amateur radio and progress made in external antenna technology. This process of building consensus within communities is the proper approach and stands in sharp contrast with the evident desire by some to have the FCC recommend that Congress rewrite private contracts. In addition to the need for community consensus to protect the rights of all parties, there are instances where association residents may seek to modify property over which they do not have control or exclusive ownership. Association rules will likely prevent such action and it is vital that association control

[5] Foundation for Community Association Research: Zogby International Survey on Community Associations available at www.caionline.org/info/research/documents/national_homeowner_research.pdf

over common elements continues. This is the case in traditional condominium associations and site-condominiums (land-based condominiums containing a single-family dwelling unattached to any other dwelling). Owners of condominium units normally assume ownership of their units and any utility infrastructure serving their unit. The remainder of the condominium facility is commonly owned property by all unit owners. Examples of commonly owned property include, but are not limited to, exterior walls, roofs, parking garages, interior halls, and other facilities shared by all unit owners and residents in the condominium. Thus, it is not within the individual rights of a unit owner to install or physically attach an external device to the condominium as the unit owner does not exclusively own the physical structure of the condominium. To do so could constitute a taking of another's private property unless the installation is otherwise expressly permitted by State or federal law.

Impact on Non-Traditional Community Associations

The proposed legislation would allow for masts/towers in all community associations without regard to their purpose. There are several non-traditional associations where this legislation would be disastrous including but not limited to:

"Dockominiums"- Associations for boat slips or mooring buoys. What if a ham installed a tower on their boat dock?
Campground Associations- These are camp-site lots where no buildings are allowed. Only tents and recreational vehicles are allowed for a limited number of days per year. So a tower would be allowed in a small camp site?
Aviation Associations- Members "fly-in" to their homes. Pilots would have to be mindful of towers.
Equestrian Associations- These communities are organized around the love of horses. They would have to allow antenna farms.
Commercial or Mixed Use Associations- A large antenna or mast may be intrusive in a commercial environment.

Finding Common Ground

Where is the common ground allowing community associations and amateur radio licensees to co-exist together? As history has shown, hams are a resourceful and creative bunch of energetic volunteers, not unlike the many board members serving their community associations. With some patience and cooperation, amateur radio licensees can enjoy their hobby and serve the community, while maintaining their property values and fostering community harmony.

According to the ARRL, there are approximately 720,000 amateur radio operators licensed by the FCC. Of this number, many are non-active. Many do not volunteer in the public interest and many do not reside within a community association. This legislation will affect every community association in the United States, yet serves to attempt to benefit, at most, a few thousand ham radio operators.

If the intent of this legislation is to serve in the public's interest, why the need to allow towers and masts across the board without any review or oversight by the community association when the legislation appears to benefit just a small handful of 720,000 licensees? Could the real intent be to allow all ham radio operators to install whatever equipment they wish with no oversight?

Alternative Solutions
There are many forms of radio equipment ham operators may use to substitute masts and towers. These alternative forms respect aesthetic covenants and may be used without requiring a community association to costly amend its documents. These are just a few ideas where the ham radio community and community associations may find some common ground without the need for onerous federal legislation.

Stealth/Dual Purpose
There are many forms of antenna not visible within a neighborhood. There are antennas that look like boulders available on the market. There would be no harm to a planned community with a ham stringing a thin antenna wire along their rain gutter or downspout if no one can see it. This is going on now in community associations all over the country.

Marine, Aviation, and Portable Stations
Many hams have sophisticated radio stations in their cars, trucks, boats, and airplanes. This should have no bearing on community associations and the association should encourage this if at all possible.

In addition, there are portable masts which are less than 15 feet tall that are designed to be set up only during an operating period. For example there may be a ham that wants to check into the Red Cross Net every Tuesday evening from home and desires to set up a small tri-pod with a small antenna for a few hours per week. This is no taller or unsightly than a portable basketball hoop allowed in many community associations.

Community Association Ham Radio Day
In community associations where many hams reside, especially in age-restricted communities, the association may support the hobby by allowing portable amateur radio station set-ups in the common areas once per month and on the annual ARRL Field Day. This could include training for a natural or manmade crisis or disaster providing the associations with a communications network the outside neighborhood may not have. This can serve to educate hams on community association nuances and the association members can learn to embrace the finer points of amateur radio. Many associations allow the public on their property to vote in county wide elections, they can use these same resources to support the overall community during times of need by having an association's hams ready to serve the community.

If a major emergency did strike a town, neighborhood or community association, a community association would never prohibit their members from being useful through the use of amateur radio for the duration of the event.. This legislation is not needed, has no precedence, and is designed to allow hobbyists the ability to install whatever equipment they deem necessary in the pursuit of their hobby under the guise of public service.

Conclusion

H.R. 1301 and S.1685 in the 114th Congress have unintended negative consequences for the 65 million people who made a choice to live in America's community associations. Of the 65 million people living in community associations, it is estimated that less than 1 percent are an amateur radio enthusiast. Creating a federal law to benefit a hobby of less than 1 percent of the

community association population under the guise of disaster recovery is not only a violation of the voluntary, private contracts, but an insult to more than 64 million Americans.

Given the findings by the FCC on numerous occasions – most recently in August 2012 - CAI members strongly urge Members of Congress and the FCC to continue its respect for voluntary, private contractual relationships and resist calls for pre-emption of such legal instruments.

Community association covenants are not impediments to "enhanced" amateur radio communications. Amateur radio operators should follow the same procedures as all other residents of the association in seeking a variance from association guidelines. Taking the time to meet the association's request guidelines, providing an accurate description of the actual variance sought, communicating with neighbors, and obtaining approval before beginning the installation of an external communications device are important steps for amateur radio operators. These are common steps that must be taken to gain approval for most variance requests and do not apply solely to amateur radio operators. CAI urges amateur radio operators to take a constructive rather than combative approach with their neighbors.

Community associations work best when owners come together to manage and support the operations and activities in their community for the benefit of all members of the community.

About the Author

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Robert Browning owns the Browning Reserve Group in Sacramento, California. The Browning Reserve Group (BRG) performs reserve studies for common interest communities, special districts, park and community services districts and other entities that can benefit from long-range financial planning. BRG currently has over 2,200 clients in multiple states and Mexico.

Mr. Browning is a two-time past President of the California North Chapter of the CAI and currently serves (as an emeritus member) on the CAI California Legislative Action Committee (CLAC). In 2003 and 2004 he served as Chair of CLAC. He served on the Board of Trustees of CAI during 2000-2006 and served as President in 2008 for the Foundation for Community Association Research.

As an amateur radio enthusiast for approximately 20 years, Mr. Browning is a member of the ARRL and holds a General Class Amateur Radio license. Mr. Browning, has served on the board of directors and secretary of the Sacramento Amateur Radio Club. He has also served as an amateur radio volunteer for the Sacramento County Sheriff's Department, both in the Search and Rescue and SHARP programs.

Mr. Browning is a graduate of California State University, Sacramento with a Bachelor of Arts degree in Geography and has earned the Professional Community Association Manager (PCAM) and Reserve Specialist (RS) designations from CAI. Mr. Browning holds Nevada RSS Permit #005. Mr. Browning is proud to have the amateur radio call sign K6RWB.

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