

What to do About Golf Carts

The Challenge:

The question of how golf carts should be regulated has become an issue for most municipal and state governments throughout North America. The popularity of using golf carts as a primary mode of transportation has exploded in the last 10-15 years and many experts believe that golf carts and low speed electric vehicles will be a more significant player in public transportation than the electric car. "According to Somers of the golf car trade association, sales of the vehicles have shown a "tremendous uptick" because they are economical, environmentally friendly and easy to operate." ¹

Retirement communities and resorts were the first to take the carts off the golf course, but neighborhood use is quickly spreading across the country. Golf carts are used at businesses, apartment complexes, colleges and on athletic fields.

Today, **there** are more than 2 million **carts** in the United States and because of their popularity, regulatory bodies have been pushed to come up with regulations regarding their use and safety. Currently 49 out of 50 states have regulations regarding the use of low speed vehicles (20-25 mi/hr) , and most have some form of regulation regarding the lower speed golf cart (generally 12-15 mi/hr) . In many retirement communities like "the Villages" in Florida, golf carts are the primary mode of transportation for most of the local residents, and the area is now home to over 65,000 golf carts.



Outside of the US, the countries of Canada and Mexico are now finding themselves tackling the issue of golf carts. While Canada finds itself having a seasonal issue also to work into the mix, trials are being conducted in some select communities to see how the slower speed vehicles work out. Mexico's retirement and vacation communities are seeing a rapid increase in demand for the convenience, economy, and environmentally friendliness of the golf cart. In any community where golf carts begin to proliferate, social media is inundated with many opinions as to their desirability, their safety, and therefore what needs to be done (or not done) to regulate their use. While all these opinions make some colorful reading, I thought it would be beneficial to look at some underlying facts and statistics regarding the safety and efficiency of using golf carts. I also wished to look at what experts consider best practices, and what are the best recommendations in how to incorporate lower speed vehicles into the towns and cities where golf carts use is rapidly expanding. To this end I will look particularly at those areas where there has been a significant history of their use.

Golf Cart History:

So, lets start by looking at what can be gleaned from popular communities in the USA which have done the most to incorporate golf carts into their local traffic.

Palm Desert CA "The city of Palm Desert, Calif., was a pioneer in the use of golf carts on city streets for older residents who winter there. Its first ordinance was created in 1974, and through the years the city has required the addition of safety features such as seat belts, turn signals and brake lights."¹

On the city of Palm Desert's website you will find the following: "[The City of Palm Desert's Golf Cart](#)

Transportation Program is intended to help develop a convenient transportation system that is safe and environmentally sensitive, generating zero auto emissions. Authorized on January 1, 1993, by California Assembly Bill 1229, the program has expanded the use of golf carts beyond transportation in and around golf courses and other recreational amenities by allowing carts on more public streets and private roads.

“In Palm Desert, permitted drivers are allowed to use golf carts for travel to schools, parks, businesses, shopping centers, and government offices. The program’s long-term goal is to provide full golf cart access throughout the community.”¹⁰



Peachtree City, GA “Harris Blackwood, director of the Georgia Governor’s Office of Highway Safety, said the Atlanta suburb of Peachtree City has had a long and positive history with golf carts. “It’s a city built on golf carts,” he said of the planned community with a significant retired population, where the carts have been used as a major means of transportation for more than 50 years. He said the state made a concerted effort in recent years to improve safety standards. “At one time, your 9-year-old could take a golf cart to the store,” he said. “If we saw a trend in the number of injuries or number of fatalities, we would certainly take a position, but we’ve not seen that come to pass.”²

Sun City AZ “Golf carts have been a staple of Sun City since it opened in 1960, when the three-wheeled version was popular with residents and traffic congestion wasn't nearly the problem it is today. Officials said 40 to 50 percent of the 27,500 households in Sun City use a golf cart.

Betty Martz and her husband, Bob, moved from another part of the Valley to Sun City about a year ago and quickly came to see the prevalence — and value — of golf-cart ownership. The Martzes downsized from two cars to one, creating extra space on their property and saving money on insurance, gas and maintenance. The savings total about \$3,500 annually, Betty Martz said”³



Governments response:

In 1997, aware that golf carts increasingly were migrating from golf courses onto city streets, the National Highway Transportation Safety Administration created a new category called Low Speed Vehicle to regulate safety. LSV vehicles are capable of reaching 20 to 25 mph and include what the safety administration calls personal neighborhood vehicles, neighborhood electric vehicles and golf cars. LSV are required to have seat belts and other safety devices. However, golf carts which go slower than 20 mph are less regulated, unless state or local governments set rules.

Safety of golf cart use:

So today having many communities with long histories of golf cart use, we can now effectively look at the safety of

the golf cart and the rules that have developed around their use.

NHTSA “As part of the 1998 ruling, NHTSA evaluated 1993–1998 crash statistics from the Fatal Analysis Reporting System (FARS) and the Consumer Product Safety Commission (CPSC). The NHTSA study concluded that deaths and serious injuries resulting from the on-road use of golf carts were not numerous but were occurring.¹ The agency anticipated that the number of serious injuries and deaths would grow with the numbers of vehicles on the roads. In 1998, only 12 states permitted LSVs to operate on public roads. Today, 46 states do .⁴

“Each year, about 13,000 golf cart-related accidents require emergency room visits, and that number is rising as the economical, fun-to-drive carts become more popular on city streets, says Seluga, who analyzed statistics compiled by the U.S. Consumer Products Safety Commission.

“Of those accidents, about 40 percent involve children younger than 16, and half of those are due to a fall from a moving golf cart.

“I’m a strong advocate of seat belts for everyone, but especially for children,” Seluga says. Seluga, who tracks golf cart accidents, says he knows of no deaths caused by rollovers in which people were using seat belts. He agrees it would be impractical to force golfers to use them on the golf course. ¹

So lets look at some of the most popular golf cart locations to see what the statistics are in those areas.

Palm Desert, CA: “Mark Diercks, the city’s transportation engineer, says golf carts with seat belts have proven safe, and rollovers have not been a problem. “The only fatal accident involving golf carts that I am aware of in Palm Desert occurred on a golf course, late at night, involving some very intoxicated individuals,” Diercks says. “Seat belts were not involved.”¹

The Villages FL: “There have now been AT LEAST THIRTEEN GOLF CART RELATED FATALITIES in The Villages in the last six years. In the last two years, in addition to three fatalities there were TWENTY-TWO golf cart occupants who were EJECTED from their golf cart and ONE who fell out of a golf cart that had to be ‘trauma alerted’ to Shands, Ocala Regional or Orlando Regional Trauma Centers because of the severity of their injuries. NONE WERE WEARING A SEAT BELT. ⁵

Currently in Florida, anyone 14 or older may drive a golf cart, even without a driver’s license. No seat belts or other safety features are required, although driving is restricted to streets approved for golf carts by local governments.¹

Peachtree City, GA “Lt. Matt Myers of the Peachtree City Police Department “In the last 15 years since I’ve been doing this, there has only been one death,” he said. Most serious collisions are caused by teenagers who drive too fast or turn too quickly; older adults generally don’t do that, he said. “I think it is a misrepresentation to say it is a major safety problem for retirement communities,” he added.”²



Other statistics:

- Similar reports come from California. “It’s not something that rides high on our list of problems,” said Chris Cochran, assistant director of marketing and public affairs for the state’s [Office of Traffic Safety](#). In 2014 there was one death and 17 injuries; in 2015, there was another death and 12 injuries for golf carts

statewide. ²

- A study in Georgia showed alcohol was a factor in about 59% of golf cart accidents ⁶
- In a 2007 report based on The National Electronic Injury Surveillance System database used to examine all cases of nonfatal golf cart-related injury treated in U.S. emergency departments (EDs) from 1990 to 2006 it was determined that of golf cart-related injuries with a reported location, 70.3% occurred at sports facilities, 15.2% occurred on streets or public property, and 14.5% occurred around a home or farm. More than 150,000 people, ranging in age from 2 months to 96 years, were injured in golf cart crashes over that 17-year span. There were at least 39 deaths across the nation due to injuries suffered in golf cart accidents who died in golf cart related accidents, many were the result of golf cart operation in planned gated communities. ⁷ That is slightly less than 3 deaths per year during that time frame.

Regulations, Licensing and Registration:

So, what has been the response and what types of laws and regulations have been put in place.

Valid driver's licence and Liability Insurance: Golf cart and LSV licensing and registration rules vary by state. Most states require a valid driver's license and insurance for all vehicles—golf carts or LSVs—that travel on public roads. Some states, such as Florida, do not require a golf cart operator to hold a driver's license, but they may establish a minimum age (typically 16) for legal operation of a golf cart on public roads

Speed Limits: Most states allow LSVs to operate on roadways with a maximum speed limit of 35 mph. Alaska and Texas allow LSVs to operate in certain localities on highways with a maximum speed limit of 45 mph. Illinois, Kansas, Maryland, Massachusetts, and District of Columbia have regulations to restrict LSV to roads with a maximum of 30 mph, while New Jersey, West Virginia, and Rhode Island restrict LSVs to roadways with a maximum speed limit of 25 mph. (insert graphic of Mph/Kph.)



Intersection Crossings: With some exceptions, such as Washington and Idaho, most states allow LSVs to cross roadways with higher speed limits than the maximum allowable for LSV use. Few regulations, however, specify whether the intersection must be controlled. Those that do, such as Maryland, usually restrict LSV crossings to intersections that have a traffic signal or stop sign

As I am in Mexico looking at what needs to be done here, I choose to look particularly at 4 southern states where golf cart use is 12 months out of the year:

Arizona: golf cart are allowed on roads with speed limits under 35 miles/hour (56k,/hr). Golf carts are required to have head lights, brake lights, and a horn.

California: golf cart are allowed on roads with speed limits under 25 miles/hour (40km/hr). Golf carts are required to have head lights, brake lights, turn signals, windshields, wipers, mirrors, horn, red reflectors front and side.

Florida: golf cart are allowed on roads with speed limits under 35 miles/hour. Golf carts are required to have head lights, brake lights, a horn and you must be 14 years of age or older.

Texas: golf carts are allowed on roads with speed limits under 35 miles/hour. All golf carts must be insured and within city limits must have headlights, taillights reflectors, parking brakes, mirrors and a slow-moving vehicle emblem on the rear.

Safety Statistics – A comparison to regular vehicles (cars, trucks, buses etc.) and motorcycles

So, let's take a hard look at the statistics of safety on a golf cart and compare that to operating a motor vehicle (car, truck etc.) or a motorcycle.

There are over 10,000 emergency room visits each year result from **golf cart** accidents, according to the Consumer Product **Safety** Commission (CPSC) This is out of 2 million golf carts. That is **one hospital visit for every 200 golf carts/year**. Deaths related to golf carts nationwide is not readily available, but in the Villages, there were 2 fatalities/year over a 6 year span attributed to 65,000 golf carts. **1 death for every 32,500 golf carts**. It appears the villages has the highest death rate reported that I could find – I believe that is the result of allowing younger drivers to take to the road.

As far as cars/trucks there were some 268.8 million motor vehicles registered in the USA in 2016. There were 37,461 deaths involving automobiles. That is 102 deaths per day or **1 death for every 7, 125 vehicles registered**. In 2010–2011, there were an estimated 3.9 million annual average ED visits for motor vehicle traffic injuries. The overall ED visit rate for motor vehicle traffic injuries was 129 per 10,000 persons⁹ **That's one hospital visit for every 69 motor vehicles** (3 times more than golf carts)

Compare the Villages/golf carts to licenced vehicles/deaths there is 1 death for every 32,500 golf carts per year vs 1 death for every 7,175 vehicles. **4 ½ times more likely to die by car than by golf cart.**

Motorcycles—account for 15% of traffic deaths in the USA, while only accounting for 1% of total miles driven. There are between 4000 and 5000 deaths/year from 8, 410,255 registered motorcycles. 1 death for every 1, 682 motorcycles. **4 to 5 times more than a regular motor vehicle and 20 times more than if operating a golf cart.**

When I consider what this statistic would be in Mexico this number would be exponentially higher considering how few traffic rules motorcyclists obey, how they drive through the middle of traffic, pass on the shoulder, and race lights. There are a number of motorcycle deaths each year in the small town I live in, and I have personally witnessed a handful of motorcycle deaths that I have come upon while driving.

Some statistics to take into consideration:

- The majority of accidents on golf carts occur on golf courses (steep hills and winding trails) or private property.² While the numbers would be higher today, from 1990 to 2006 only 15% of accidents occurred on public roads or property.⁷
- Far more people are killed on the **golf** course by lightning than any other cause

Conclusions:

So what should be taken from all this:

1. Golf carts by and large are exponentially safer than cars or motorcycles. This can be attributed mostly to the speed in which they are driven. With canopies golf carts are as easy seen as a car, and they don't appear out of nowhere like a motorcycle driven at high speeds. Accidents are often no worse than if you were running at top speed or riding a bicycle.
2. The test of time has shown the following: Golf carts used on public roads should have headlights, taillights, brake lights, signal lights and reflectors. This allows all vehicles around them to be able to see them and be able to anticipate their movements particularly after dark. Emergency brakes, horn and rear-view mirrors should also be required. Any use where speeds can be attained of over 11 miles/hour seat belts should be worn, particularly by children. (Testing has shown that 11 mi/hr (17km/hr) is the

speed in which people can be ejected out of the side of a golf cart when taking a sudden sharp turn.) And as seat belt use in cars has proven – they work.

3. As golf carts are vehicles, they should carry liability insurance. Other types of insurance such as collision, theft, and medical if available are recommended.
4. Golf carts should be allowed on streets where the speed limit is 50 km/hr or less. That would include laterals where business congregate allowing the golf cart to participate in local commerce.
5. Golf carts should be allowed to cross streets and highways that have higher speed limits wherever there are traffic lights, or it can be determined that it is safe.
6. As has been determined in a number of areas in the US, golf carts should be allowed in the right hand shoulder of busy roads so that they do not impede faster traffic. Such should be the case on laterals where there are two lanes. Golf carts whenever possible should use the right hand lane, and pull over to the right whenever possible to allow regular vehicles to pass safely.
7. Licencing of golf carts is generally not a requirement. Some states and many cities use a registration to allow for inspections to make sure proper lighting and safety features are being utilized by the golf cart. Central data bases of registration also allow for the tracking of vehicles, particularly stolen ones. Regular Low speed vehicles, which go faster than 20 mi/hr and less than 25 require the same licencing as regular vehicles. A few areas, like California require each golf cart to get a 17 digit serial number and be licenced.
8. Golf carts should never be driving on highways that have a speed limit of greater than 50 km/hour unless there is a wide shoulder and local governments have determined it to be safe. Hazard lights and a slow moving sign should be used.
9. Alcohol and golf carts should never go together, and fines should represent the seriousness of driving under the influence.

Sources:

1. <https://www.insurancejournal.com/news/national/2010/06/22/110892.htm>
2. [https://www.nytimes.com/2017/03/04/business/retirement/the-mostly-safe-golf-cart.html%20%20\(New%20York%20Times\)](https://www.nytimes.com/2017/03/04/business/retirement/the-mostly-safe-golf-cart.html%20%20(New%20York%20Times))
3. <https://www.azcentral.com/story/news/local/surprise/2014/08/14/golf-carts-rule-roads-sun-city/14095291/>
4. <https://assets.aarp.org/rgcenter/ppi/liv-com/insight54.pdf>
5. <http://www.golfcartsafety.com/blog/2014/04/22/golf-card-crashes-with-fatalities-and-the-use-of-seat-belts>
6. <http://www.cedtechnologies.com/golf-cart-accidents-rise-still/>
7. https://www.researchgate.net/publication/5314551_Golf_Cart-Related_Injuries_in_the_US
8. http://www.mississippivalleypublishing.com/daily_democrat/opinion/letters_to_editor/golf-cart-debacle-up-for-debate-but-here-is-the/article_72f6dbc9-4672-5fbc-a0a3-56bf23338890.html
9. <https://www.cdc.gov/nchs/data/databriefs/db185.htm>
10. www.cityofpalmdesert.org/departments/public-works/engineering-/transportation-/golf-cart-program

