

(Avoiding) Shooting Yourself in the Foot: Test Flights as Experimental Use



Public flight testing of experimental vehicles, like the rotary rocket, sometimes avoids statutory bars to patenting.

The US patent system is designed to encourage inventors to promptly file for patent protection if they plan to take advantage of the patent system at all. Although it may seem like a great business model to secure a twenty year period to exclude your would-be competitors from making your invention once they actually show up, the patent office generally frowns on people commercially exploiting their unique product for years and then filing for protection once they have sighted their competitors! In order to avoid this kind of anticompetitive behavior, a number of conditions have been laid down in patent law called [statutory bars](#). If one of these statutory bars occurs, such as publicly using the invention, an inventor has one year to file for patent protection, or the inventor loses their right to domestic patent protection.

There is a problem here, however: what if your invention is huge, or flies through the air, or both? What if you need to test it outside in order to determine if it actually works? Fear not! For the experimental use exception may apply!

[35 USC §102\(b\)](#) prevents inventors who *describe their invention* (including pictures or video!) in a printed publication anywhere in the world or *publicly use* or *sell/offer to sell* their invention in the United States from receiving a patent if they wait to file an application more than one year from the first of those occurrences. These are the so-called statutory bars! Once one of those events happens, it's a race against a year-long clock. However, patent law recognizes that not all inventions can be easily hidden away in a basement until it's ready for market. In many cases, especially in space-related industries, an invention needs to be flight tested or even simply assembled outside, in view of the public, as part of its initial development.

The experimental use exception prevents activation of the one year grace period that would normally occur if an inventor publically uses their device. If an inventor publically uses their device but are, in good faith, testing its operations, determining its workability, or trying to perfect the invention, the grace period will not be triggered! In order to avoid triggering the grace period, this use must be truly experimental in nature.

[A classic example](#) of public use which is considered experimental involves the development of a new type of road surface. An inventor seeks to determine whether a new type of road surface he is developing will

withstand consistent frequent use by vehicles in the widely varied climate of New England. He installs a stretch of road near the center of his town made of his new road material and checks the surface for wear and tear everyday for several months in order to determine how it holds up. People walked on this road surface every day, so this would seem an obvious case of public use! However, this action is considered experimental use because the inventor carried out experiments to determine the workability of his invention, seeking to perfect it. Without this good faith experimentation and testing, this use would have been public, potentially triggering a statutory bar, but the experimental use exception protects our intrepid street inventor from this unfortunate fate!

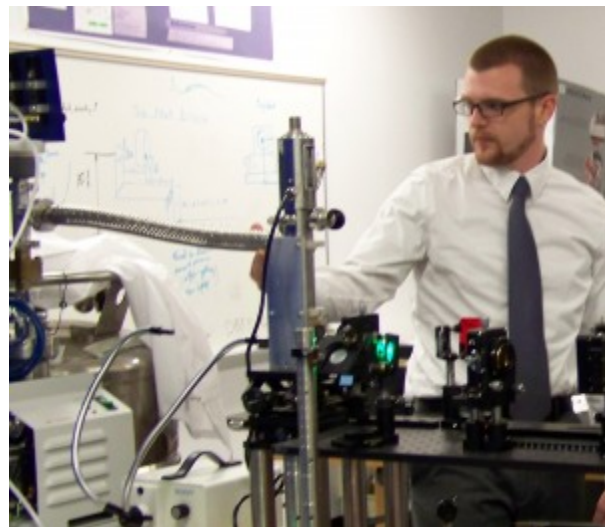
Before you have the urge to simply call everything you ever do, up to and including selling products to customers, an “experimental use” or a “beta test” remember that your experimentation must be in “good faith.” [As other people found out](#), you must conduct actual testing of your device in order for a use to be considered experimental! The amount of experimentation or subsequent testing required will vary based on the invention in question, the inventor, the industry, and other objective factors.

For a more modern example, let’s pretend I have a space company and I am flight testing my new launch vehicle in the skies above southern California. Even if I wanted to, I can’t wall off the sky, so I am conducting these tests in the public

eye. If my launch vehicle has been perfected, my actions would likely be a public use! On the other hand, if I am conducting flight testing, I am likely measuring, testing, and tweaking my vehicle trying to shake all the kinks out in a manner that validates my design without, hopefully, cratering the vehicle. This would likely be considered experimental use, even if, [as Honeywell found out](#), reporters come and witness my flight testing and report on my “under development” launch vehicle!

The experimental use exception can help you avoid destroying your own patent rights. In order to satisfy the experimental use exception when testing something in the public eye, ensure that the testing is bona fide experiment, seeking to perfect the invention and keep good records!

Happy creating!



In many cases, ongoing experimentation is required to satisfy the experimental use exception.