

Motion-Induced Blindness

The Cadillac driver and the Skyhawk crew shared the same problem: Even with relative motion between our machines, their thousand-mile stare fixated on looking for a spot, ultimately excluding anything else in the field of view. Years later the term identifying the issue seemed fitting: motion-induced blindness, MIB for short. It's sometimes referred to as as "Troxler's Fading" or "Troxler's Effect," though the two phenomena are not the same. It's the illusion that let an entire Comanche vanish from view and did the same for the Harley—and it does it to pilots with regularity.

The MIB phenomenon can be demonstrated by viewing an animation, consisting of a rotating background grid and three fixed yellow dots. In the center is a blinking green dot. If we fixate on the center by focusing on the flashing green dot, the yellow spots will disappear once in a while: singly, in pairs or all three simultaneously. In reality, the three yellow dots are continuously present. The images at right are stills taken from an animation found on the Internet demonstrating the effect.

When we stare at a spot long and intensely enough, our brain can stop registering details outside our eyes' central focus region, even details that appear to be moving. The result is objects will tend to disappear after a short while, usually around 10 seconds. There's nothing wrong with your eyes when this happens. Instead, it's a natural result of the ways in which the human brain works. That said, scientists haven't agreed on how MIB actually works and what causes the brain to essentially discard what was, a few seconds earlier, valid information.

Discarding valid visual information is not the outcome we want when scanning for traffic, so the remedies to avoid this phenomenon include head movement, eye movement and body motion. See this article's discussion of proper scanning, follow its tips, and the only time you'll be concerned with motion-induced blindness will be when you introduce others to the test. To do so, here's a link to Dr. Bach's Web page: tinyurl.com/avsafemib.

