

What Flight Training Teaches You About Night Flying

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During flight training, you will learn everything from flying under VFR conditions to IFR conditions, and even [night flying](#). Night flying can be jarring, so it is important to have a clear understanding of the rules and regulations of night flying that you learn in [flight training school](#).

Physiologically, human beings are designed to operate at maximum capacity during daylight hours. Night flying can be a trying experience that requires the perfection of a set of skills that aren't necessarily required during the day.

Almost all flight time logged by the average pilot occurs during the daytime. Due to this fact, revisiting night flying techniques is an important part of safety precautions.

Vision

Most pilots know the basic fundamental physiological requirements of night flying. The most important part is to adapt our eyes for darkness. Anatomically, we have photopic vision for daytime and scotopic vision for nighttime. As for the cones and rods in our retinas, 7 million thicker cones are used for daytime vision and 120 million thinner rods are used for night vision.

Your eyes literally need to change their physiological makeup to adjust for the lack of lighting. [Dark adaptation](#) refers to the adjustment your eyes are experiencing that makes them more sensitive to light. Generally, dark adaptation takes 30 minutes in total darkness. However, dim red cockpit lighting can help you achieve dark adaptation in 20 minutes.

Several factors can impair or influence your vision. Some of these may include cabin altitude pressure above 5,000 ft, smoking, exhaust fumes, temperature, humidity, and even a vitamin A deficiency.

*TIP - if a light is being used in the cockpit (a flashlight), close one eye to preserve some level of night vision.

Lighting

Every pilot should carry at least two flashlights, extra batteries, and a penlight for his or her pocket.

Pilots should be sure that all required aircraft lights for night flying are functioning normally. Be sure to double check these during your walk-around.

The [position lights](#) (or navigation lights) must be on at all times if operating anytime from sunset to sunrise. These lights include the left wing which is red, the right wing which is green, and the aft or tail which is white. Anti-collision lights (strobe-lighting) are also required for night and day operations both.

Flight training

In order to prepare and learn the skills necessary for night flying, you must work hard during [flight training](#) to understand all of the fundamentals. Generally [flight simulators](#) are the best supplement to training for night flying. By learning with the night simulation at your flight training school, you will be efficiently equipped for night flying.

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