

Flight Safety Corner

Pilot items of interest to support refresher training and flight safety

By Dave Dion, FPA Safety Committee Chair

April Topic – Night Flying (shedding some light)



Spring is in the air and FPA pilots will be too as they launch for Wednesday “Fly Outs” for out of town socializing, dinners, and fun. Return trips to KFIT could be under night flying conditions; so here’s a refresher to help make night flying as safe as possible (reference AOPA Night Flying article):

1. Certification Rules

> To carry passengers at night (defined as one hour after sunset to one hour before sunrise), you need three takeoffs and three landings. As a backup plan ... you could wolf down dinner and sneak back to KFIT before “official” night.

2. Lighting

> Have working flashlights (or a headlamp) with white light for preflight inspection and red light to help preserve night vision in the cockpit. Needless to say – pay special attention to the aircraft’s external and internal lighting BEFORE takeoff. Make sure you have a second lighting source within reach if the primary fails.

3. Weather

> For VFR night flying below 10,000 feet and in Class C, D, E, & G airspace, you’ll need 3 miles visibility and 500 feet below, 1,000 feet above, and 2,000 feet horizontal distance from clouds. Here are a few additional thoughts for flying at night:

- **Personal Minimums:** some VFR pilots double their weather minimums over open land at night - as this may help pilots feel they are not pressing their skill levels flying at night with other than perfect VFR weather.
- **Fog:** another night flying weather consideration is the temperature / dew point spread. A small spread (or no spread) means increased chances of encountering fog or some form of visible moisture.
- **NOTAMS:** when getting your night weather briefing be sure to look for NOTAMS with a bearing on safe night flying. An example would be inoperable runway lights or a rotating beacon at destination.

4. Vision

> When the sun goes down ... so does our visual acuity!!! To make the best of your night vision, reduce exposure to bright lights 30 minutes before the flight and during taxi (e.g., don’t stare at strobe lights). During night flying vision is augmented by using off-center viewing – a technique requiring you to look slightly off center instead of directly at the object (don’t stare but move your eyes around to facilitate off center viewing).

5. Illusions

> Certain illusions can be hazardous during night flying:

- **Auto Kinesis** – caused by staring at a single point of light against a dark background for more than a few moments, auto kinesis will make the light appear to move on its own. To help prevent this, focus on a variety of objects and maintain a constant scan.
- **False Horizon** - can occur when the real horizon is obscured or by confusing lights and stars. Pilots should be especially aware of this illusion when flying toward a shoreline as the dark water may make the shore lights easily confused with stars. As a result, the pilot aligns the aircraft nose with the shore instead of the horizon. To prevent this monitor your attitude instruments for an accurate indication of your pitch.
- **Clouds** - though not an illusion, the presence of clouds on a night VFR flight can be hazardous. To ensure you don't unintentionally fly into clouds, get a thorough pre-flight weather briefing as well as in-flight updates. If you do fly into clouds it's important to use your instruments - not instincts - to maintain positive control of the aircraft.
- **Landing Illusions** - a lower-than-normal approach is most often a result of visual obscurations such as rain, haze, or even a dark runway environment. Bright lights, steep terrain, and wide runways can produce the illusion of being too low – resulting in a higher-than-normal approach. Highway lights are easy to mistake for runway lights at night; be sure you are approaching a runway, not a highway.

Finally, carefully select an appropriate meal from the menu that won't stress your digestive system and interfere with your proficient piloting back to KFIT ;->