

Safe Flying Tip number four:

Night Flight

It was 1980. John was thirty years of age.

He was a private pilot with 300 hours, fifty at night. He rented our Piper Tomahawk twice a month after work. He was very comfortable flying at night as he did most often.

It was VFR, ceiling 4000 feet, visibility 5 miles.

It was a dark night. The weather was well above VFR minimums and John had flown on many nights in similar weather conditions.

He made his flight to a small airport in southern New Hampshire without incident. Upon his return flight home, he crashed shortly after takeoff. He died. Everyone at our FBO knew John and we were all heartbroken.

What went wrong? How did this happen?

The NTSB, National Transportation and Safety Board, did a thorough investigation, as they do on all accidents, especially ones with fatalities. They found the engine to be in good running condition. They ruled out carburetor ice. The airframe showed no sign of problem.

The autopsy showed no sign of problem with John's physical condition. The accident remained a mystery.

I discussed the accident with many experienced pilots.

We came to the following conclusion, which I believe to be accurate.

The airport was a small rural airport that was a good distance from any town. The airport was in the hills. Even though the visibility was five miles, there was nothing to see within five miles. It was overcast, so there were no stars visible. There was no moon, so the overcast remained total black.

When John took off he had no ground reference. He was not instrument rated and probably did not know enough to refer to his artificial horizon on climb out. He attempted VFR flight on a very dark night and probably just loss control of the aircraft

The United States is one of the few countries that permit night flight without an instrument rating. Night flying is serious business. Night flying can be fun and the sights you see can be beautiful. How can a newly certificated pilot fly safely at night?

John, like JFK Jr., found himself in a night flight situation where he had no ground reference. He did not have the training to use the instrumentation he had on board to fly the plane safely. They both met an unfortunate death.

Newly certificated pilots can enjoy night flight when the following conditions exist:

- Flight over populated, well lighted areas, where there is always a ground reference.
- Flights on clear, moon light nights.
- Flights on clear nights when the sky is full of stars.

The bottom line is night flying in the USA is a privilege. The newly certificated Pilot must have very good meteorological conditions to fly at night.

The new pilot must also be more conservative regarding wind speed when landing at night. I recommend that a newly certificated Pilot set wind limitations about one half his/her daytime limitations.

I also recommend you do not fly into an airport at night that you have not flown into during the day time. You should know where the towers are. You should know where the hills are.

I recommend you only fly into a large multi runway airports with full FBO services available for all of your flights, but especially night flights.

I recommend you fly into airports that have VASI, Visual Attitude Slope Indication. Following the VASI will always assure obstacle clearance. Red on the bottom and white on the top and you are on the correct glide path.

Now let's look at some of the similarities between John's accident and JFK Jr's accident.

Both pilots flew regularly and were confident in their flying abilities. Both were night current.

Both were flying on hazy nights, there was no moon, there were no visible stars. At the time of the accidents there were no ground lights in sight. These are conditions that require reference solely to the aircraft's instruments.

VFR RATED PILOTS CANNOT FLY ON HAZY NIGHTS AND DO IT SAFELY!!!

Some lessons to be learned about Night Flight are:

- Do not leave the pattern if the temperature dew point spread is less than 5 degrees.
- When the temperature dew points are very close, you must have a "Soled Gold Out".
- Never lose sight of the ground lights.
- Do not venture away from land if you cannot see ground lights or stars.
- On bright moonlight night you can fly just about anywhere safely.
- Do not land at airports at night that you have not visited during the day first.
- Follow the VASI lights for guaranteed obstacle clearance during landing.
- Daytime flying is safer.
- You are safer flying on a beautiful night than flying in marginal weather during the daytime.