

## **178 Seconds to Live**

(DOT pamphlet)

*If you are ever tempted to take off in marginal weather and have no instrument training, read this article first before you go.*

How long can a pilot who has no instrument training expect to live after he flies into bad weather and loses visual contact? Researchers at the University of Illinois found the answer to this question. Twenty student "guinea pigs" flew into simulated instrument weather, and all went into the graveyard spirals or roller coasters. The outcome differed in only one respect: the time it took to lose control. The interval ranged from 480 seconds to 20 seconds. The average time was 178 seconds – two seconds short of three minutes.

### **Here is the fatal scenario**

The sky is overcast and the visibility poor. That reported 5-mile visibility looks more like two, and you can't judge the height of the overcast. Your altimeter says you are at 1500, but your map tells you there is local terrain as high as 1200 feet. There might even be a tower nearby because you are not sure just how far off course you are. But you have flown into worse weather than this, so you press on.

You find yourself unconsciously easing back just a bid on the controls to clear those none-too-imaginary towers. With no warning you are in the soup! You fight the feeling in your stomach. You swallow, only to find your mouth dry. Now you realize you should have waited for better weather. The appointment was important - but not that important.

### **Somewhere a voice is saying "You've had it - it's all over!"**

You now have 178 seconds to live. Your aircraft feels on an even keel, but your compass turns slowly. You push a little rudder and add a little pressure on the controls to stop the turn, but this feels unnatural and you return the controls to their original position. This feels better, but your compass is now turning a little faster and your airspeed is increasing slightly. You scan your instrument panel for help, but what you see is just a bad spot. You will break out in a few minutes. (But you don't *have* a few minutes left.)

You now have 100 seconds to live. You glance at your altimeter and are shocked to see it unwinding. You are already down to 1200 feet. Instinctively, you pull back on the controls, but the altimeter still unwinds. The engine is into the red, and the airspeed, nearly so.

You have 45 seconds to live. Now you're sweating and shaking. There must be something wrong with the controls; pulling back only moves that airspeed indicator further into the red. You can here the wind tearing at the aircraft.

You have 10 seconds to live. Suddenly, you see the ground. The trees rush up at you. You can see the horizon if you turn your head far enough, but it 's at an unusual angle -- you're almost inverted.

You open your mouth to scream, but -- you have no seconds left!