

# SAFETY FIRST

## SINGLE VS. TWIN

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Flying home from one of our recent meetings this year, one of our Flying Physician members sustained a complete engine failure in a piston twin. He managed the emergency expertly as he had been trained and landed the aircraft without incident. Obviously an incident which will not blip on any governmental radar scope, certainly not the NTSB or FAA.

All of us at one time or another have contemplated flying a twin and wondered about the relative safety margin provided by that second motor. The question often posed by the uninitiated, "Which is safer?" cannot be answered without many caveats and conditions. There are too many variables inherent in the question. In my view, it is unfortunate that an engine failure is not a required report to the NTSB. Doing so would provide useful safety information to the GA community. However, in the general scheme of things, I suspect it probably would not budge committed single or twin drivers out of their comfort zones.

Several years ago the staff of *Aviation Consumer* was allowed to view the tower logs from Bradley International airport over six months and found that an average one twin per month landed with a

feathered prop. Half were turbo props which had shut down an engine as a precautionary measure; the rest were piston twins. So it would be reasonable to assume that this is not an unusual occurrence. Of course, any twin that does crash makes it to the front page. It is a known fact, as noted in the yearly *Nall Reports*, that the lethality rate in twin crashes is higher than in singles. The higher speeds and larger cabins account for the higher rate and total number of fatalities.

In analyzing the data that is available however, there are some general statements that can be made on this subject with reasonable confidence. For example,

- an engine failure shortly after take off in a twin poses more risk than in a single, even though the single will, by definition, reach terra firma in short order.
- In cruise, the twin holds the advantage, although it still requires a strong measure of skill to land without bending aluminum.
- Some noted aviation writers, like Richard Collins, have noted how critical the pilot's mental attitude and approach can factor into whether a twin becomes an accident statistic.

The notion that simply having a second engine lessens risk exposure is an exercise in self deception. Multi-engine flying probably does enhance flight safety, provided that the engines are well maintained, and the pilot maintains a high level of proficiency in that aircraft. The FPA pilot who successfully managed this inflight emergency met those criteria, and his reward was that this event was a non-event. We are all gratified that it turned out that way.

***Nil illigitimae carborundum***