

## OPTIMUM MISSION PROFILES

It goes without saying that you shouldn't expect a single-engine piston aircraft to compete with the airlines on either cost or efficiency for a single-segment, out-and-back trip across the continent. For example, if you're going from Los Angeles to New York for a one-day meeting and then returning the next day, the airlines rule, even with their shoddy service.

On the other hand, if you're on a multi-stop business-development trip to remote locations and have to constantly revise your schedule to meet shifting client needs, a general aviation airplane can be an essential part of your business. In these cases, general aviation can even compete favorably with the airlines on cost and schedule. As evidence, the sidebar on page 6 summarizes my recent experience.

While I was an executive for the FAA, I worked closely with colleagues at NASA on two programs to improve general aviation safety and utility. The Advanced General Aviation Transportation Experiments (AGATE) concentrated on the aircraft technologies and pilot training issues while the Small Airplane Transportation System (SATS) program concentrated on the infrastructure and airspace issues. Research in both programs tried to define the optimum mission profile for small general aviation aircraft and (no surprise) it turns out to be trips or segments of from 150-750 miles. For shorter distances, drive, and for longer distances take the airlines.

Another finding was that true airspeed didn't matter much for either airline or general aviation travel. What matters is door-to-door speed, which has been decreasing for airline travel since the 1960s. For general aviation, it has been stable or slowly increasing. Think the typical fixed-gear Cessna 182 from the 1970s cruising at 135 knots versus a contemporary fixed-gear Cirrus or Corvallis at 175 knots.



*Yes, you can choose to use larger airports, served by the airlines, as your destinations when using personal aircraft for transportation, but it might not be the most economical choice.*



*No matter which aircraft type you choose, use an airport closer to your ultimate destination. Piper's Arrow (above) and Socata's TB-20 Trinidad offer decent economics, reliability and utility.*

