

Wake up, GA industry, the sun is rising



Aviation may be the last frontier the Japanese haven't conquered, and one insider warns that it's about time for a storm brewing in the Pacific to make landfall on U.S. soil. The question is whether American manufacturers are ready to take on super-wealthy foreign corporations with track records in mass production.

With continuing complaints about airline travel, there is more and more talk about a paradigm shift where small, easy-to-fly airplanes will cater more to the transportation market than the enthusiast market, thus creating a new breed of customer. This concept was recently captured in James Fallows' book *Free Flight* ("Pilot Products," September 2001 *Pilot*). There have been early indications of Japanese interest in the new aviation paradigm with Honda developing a jet and, more recently, Toyota successfully flying a four-place piston composite aircraft in California earlier this year. Not surprisingly, neither company will say what its future plans are, but business consultant A. Sandy Munro, of Munro and Associates, who specializes in the auto industry, says aviation is part of Toyota's 100-year plan. (Japanese companies often plan far into the future.) "They have a standard, predictable battle plan that has always worked because the traditional American businessman always falls for it," Munro said.

This plan is rooted in the teachings of W. Edwards Deming, an American consultant who, among others over many decades, dramatically revolutionized Japan's level of quality and productivity and was famous for his "14 Points for Management." Deming's work was largely ignored in his own country until the early 1980s. Deming spent his life—as he once put it in an interview—"trying to keep America from committing suicide." He died in 1993. "He taught them [the Japanese] how to measure, identify, and ultimately produce quality, and how to eliminate waste," Munro said. "Deming's thumbprint is everywhere in every Japanese product."

Twenty-five years ago the United States led the world in the production of electronics, crude steel, ships, and passenger vehicles, but now it has fallen behind Asia. In short, Deming's teachings are Japan's secret weapon. They have shown simply that quality costs less, not more. In a paper he delivered to a Society of Aircraft Engineers conference in April, Munro suggested how that weapon might be applied to general aviation: "They [Japanese companies] will hire the best minds, whatever the cost; avoid conventional wisdom; build product samples

and enlist input from tough customers, outsiders, and noncustomers; produce superior products with bewitching features designed to coax customers from established brands; use American lobbyists in Washington, D.C., whose tactics will be viewed by politicians as threatening for the country, but good for states where the manufacturing will be located; reduce prices while increasing quality; sell on the spot; attract the frugal buyer; and use the media to avoid advertising costs. They will then move up to personal jets and repeat the process." It will continue, Munro said, until Boeing and Airbus get scared.

So how much time, in Munro's mind, will it take for the storm to hit? It took the Japanese three years, he said, to dominate the motorcycle market after the first Honda appeared in North America and less than two years for outboard motors and generators. "I predict you have two years tops in GA after the first Japanese sale," he said.

One company that wasn't surprised by all of this is Cirrus Design. Munro has worked with the company but would not say what his role was there. Cirrus knew something was up more than three years ago when Toyota started placing ads in the local Duluth, Minnesota, newspaper, seeking employees for its aircraft division in California. Cirrus spokesman Ian Bentley sees Toyota's business plan as similar to that of Cirrus: a market expansion for personal air travel. Eclipse Aviation is also banking on the paradigm shift and has been studying the latest techniques to improve quality.

Some other American GA manufacturers have already started changing their ways, but not entirely because of a foreign threat. This past summer Cessna Aircraft announced that it has adopted something that was pioneered in Japan, lean manufacturing—minimizing waste and maximizing sellable products—at its piston factory in Independence, Kansas. Cessna has consolidated three production lines into one for the 172, 182, and 206 models. Aviat Aircraft has created a new automated manufacturing process that will take the company from its tube-and-fabric heritage to computerized construction and paperless documentation for a new family of aircraft. And The New Piper Aircraft is working on its "Factory of the Future," a plan to modernize manufacturing methods that have changed little in 40 years.

If Toyota does decide to crank out Lexus-inspired airplanes, Munro said one thing that the aviation industry has going for it is time to plan for a new competitor—and a new customer, for that matter—more time than any other industry has ever had.