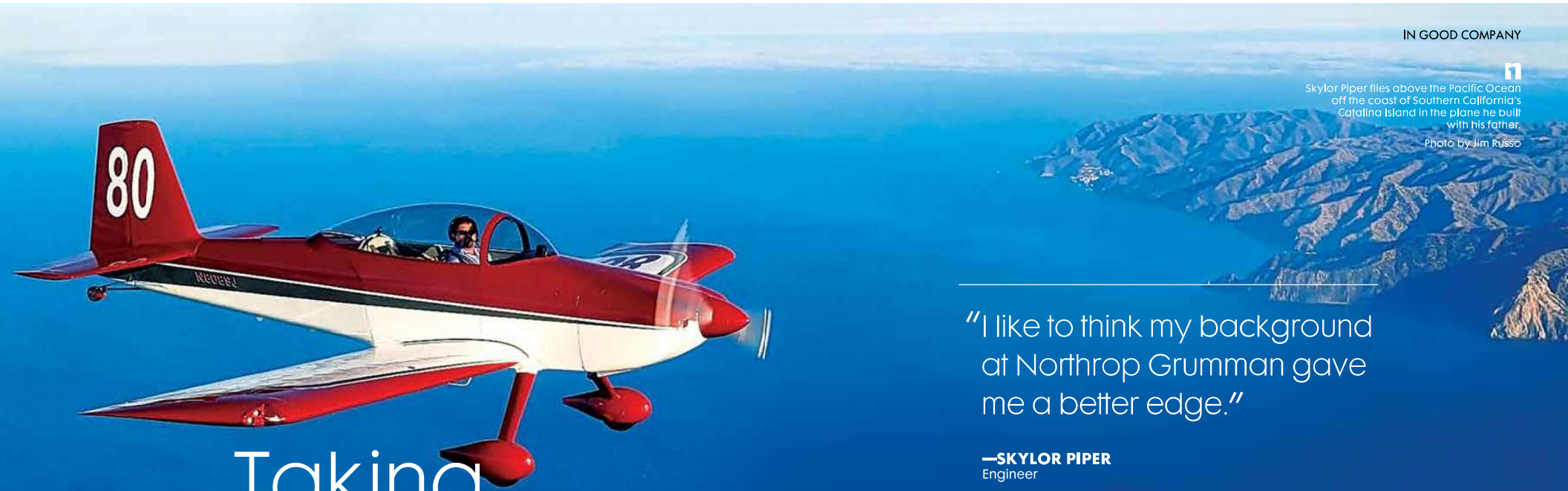

Skylor Piper flies above the Pacific Ocean off the coast of Southern California's Catalina Island in the plane he built with his father.

Photo by Jim Russo

Taking to the Skies

By Michelle A. Monroe

> "I like to think my background at Northrop Grumman gave me a better edge."
>
> **—SKYLOR PIPER**
> Engineer

Engineer Skylor Piper is right at home in the cockpit of the sleek, red-and-white airplane he built with his father, Jim Piper.

"It was my father's idea to build a plane, and I ran with it," said Skylor, who spent nearly every weekend from 2003 to 2010 taking the project from concept to reality.

Skylor, who got his pilot's license at 32 and was a machinist before he was an engineer, has been with Northrop Grumman for 26 years and currently works at Space Park, California, in space manufacturing and engineering.

Jim, a retired airline pilot, grew up surfing in Hermosa Beach, California, and learned how to handle fiberglass and wood from years of repairing his surfboards. The two men's skills were perfect complements when it came to building the airplane, a Van's RV-8 single-engine aircraft, from a kit.

"It was a thrill the first time I saw him take off," Jim said. By the time the plane was finished, he said, they'd put it together then taken it apart again three or four times.

Soon, Skylor was taking the plane out at least once a weekend and set his sights on a new goal: racing. Skylor named it 'Miss Ruby S.' as a nod to the famous ruby slippers from "The Wizard of Oz," due to the plane's two red wheel pans.

A NEW GOAL

Skylor and Jim had attended the Reno Air Races — officially known as the STIHL National Championship Air Races — as spectators for years; they loved watching pilots make steep turns around wood and steel pylons and race wingtip to wingtip 50 feet above the ground at speeds of more than 500 miles per hour.

To make the tandem two-seat sport aircraft fast enough to compete, Skylor and Jim modified it to be lighter and more aerodynamic, taking out one of the seats and removing antennae to reduce drag.

When Skylor told his colleagues that he was going to start racing, he learned that his teammate and fellow pilot John Russo had a lifelong dream to go to the Reno Air Races.

"I told Skylor, 'If you race, I am there,'" John said.

In 2015, as a rookie, Skylor won his first heat race — with Jim and John both there to celebrate. While he didn't qualify for the final championship, he took stock of his plane and made more modifications for future races, including adding nitrous oxide.

"I like to think my background at Northrop Grumman gave me a better edge, including using nitrous oxide more safely and effectively than other racers because I understand more about it," Skylor said. "Knowledge of propulsion and combustion gives me good insight about fuel mixtures."

Behind Skylor is a tight-knit community that he described as his "September family," for their support during the Reno Air Races in September.

"We go nuts cheering for him," said John, who, along with his 12-year-old son David, is part of Skylor's crew team. "When he's doing great, we love it. When he gets passed, it breaks our hearts."

VICTORY, AT LAST

On Sept. 19, 2021, six years after he began racing, Skylor won first place in the Sunday final for the Medallion division with a speed of about 234 miles per hour.

"To do something like that, with a plane you built and your family there, is pretty rewarding," said Skylor, who is aiming for another victory at Reno in September 2023.

Jim was proud to see his son's hard work pay off.

"Others used bigger engines to make their airplanes go faster, but Skylor innovated with what he had to make his airplane competitive," Jim said. "He has the ability to put everything aside and focus on whatever the mission is; he'll make an impossible mission, possible."