



# FLYING TIME AND EXPERIENCE **IMPROVE** **LIGHT JET SAFETY**

Over a decade ago, when very light jets (VLJs) were still in the planning stages, a number of predictions about the airplanes were widely discussed in government and industry circles.

Observers asked how quickly the airplanes could go from concept to production, and at what cost? Analysts debated how many of the aircraft would be in the business aviation fleet in the years following their certification. And safety experts debated what, if any, specific mandates or best practices would apply to VLJ operations.



### Case Studies = Learning Opportunities

Several years have passed since the first new-generation light jets were type certificated, and during those years, much real-world flying has taken place. What lessons from this initial flying experience can we apply to ensure that the new light jets will continue to be operated safely going forward?

The operations conducted since the certification of two new light jets – Eclipse's 500 and Cessna's Citation Mustang – have provided some useful case studies. For example, Eclipse airplanes have experienced several events, including minor runway-overruns, blown tires on landing, fuselage fairings lost in flight and avionics failures because of moisture condensation. Mustang airplanes have endured overruns, as well as bird strikes and other incidents.

Ken Maynard of Kerrville, TX-based Falcon Insurance says that these minor events represent learning opportunities, but he finds "nothing to indicate any systemic training problems." Stuart Hope of Hope Aviation, an insurance broker in Columbia, SC, agrees: "These light jets enjoy a safety record that doesn't scare off underwriters."

### Customized Training

In spite of the solid safety record demonstrated by the new light jets in the years since their certification, people in all corners of the industry have scrutinized the flight data in search of ways to ensure the trend continues.

For example, those responsible for training in their operation have looked at new-generation light jet operations to date as a reason to redouble their emphasis on safety and proficiency. "One thing we tell people over and over here at Eclipse," said Paul Burns, director of training for Eclipse Aerospace, "is that there are two factors that will dictate your success or failure: instrument proficiency and your attitude. Check your ego at the door. With the Eclipse, our plan was to build...a very special jet, and the training program had to be special, too."

One of the most challenging students Burns ever had, he recalls, was a retired airline captain with 35,000 flight hours. "He hadn't flown single-pilot since who knows when, and he barely remembered

flying with raw data. He didn't do well." On the other hand, a buyer with only 950 total hours did exceptionally well. "His basic instrument skills were right up there, and he came in with the attitude that he was here to learn."

The early operational experience with new-generation light jets has prompted other moves to custom-tailor training. Barely considered before the airplanes were introduced, mentors now are often required for five, 10, 20 or some other number of hours, depending on a pilot's experience. "He's not there as a check airman, not there as an instructor or examiner," said Burns. "He's a coach, an advisor, a friend who can help you get your real-life skills up to speed."

Several manufacturers now outsource training of their new-generation light jet customers to professional training organizations: Cessna contracts with FlightSafety International, and Eclipse plans on Simcom opening its Eclipse training center in the fall.

### Refining Best Practices

Government officials and industry associations are also taking steps to further refine best practices and regulations. The Federal Aviation Administration (FAA) has issued a formal notice of proposed rulemaking that would establish additional regulations for these new-generation light jets. The new proposed FAA regulation is a small addition to FAR 61.58 requiring annual proficiency checks yearly for single pilots of light jets.

At the same time, NBAA's Safety Committee, which worked with a broad industry group of safety specialists to develop a preliminary set of best practices when the new-generation light jets were introduced, is re-writing those guidelines.

"In short, it appears that those who predicted that VLJs could be safely introduced into the aviation fleet have been proven correct," said Doug Carr, NBAA vice president for safety, security & regulation. "Nevertheless, the industry hasn't looked at the good initial safety record of these aircraft as a reason for operators to relax. Clearly, there's a recognition that we need to learn from the flight record and build upon it." ❖