BACK TO THE FUTURE

Eclipse 550 production hopes to deliver on Eclipse 500 promises

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PHOTOGRAPHY BY MIKE FIZER AND CHRIS ROSE

WITH THE RELAUNCH of production of the Eclipse light jet, Eclipse Aerospace hopes to buck a trend that has doomed many other manufacturers that attempt restart of a bankrupt project. Over the years, numerous attempts to restart production of lighter airplanes acquired from bankrupt companies, such as the Commander 112/114, Luscombe, Taylorcraft, Tiger, and others have failed—sometimes multiple times. But the Eclipse relight may be different—and successful—for several reasons.

VIEW THE VIDEO

THE PRIMARY differences between an Eclipse 500 Total Eclipse (shown on these pages) and the new 550 in development are in the panel. This Total Eclipse includes the latest upgrades to the Avio IS&S flight management system, including the reintroduction of the pop-out keyboards. The keyboards were in the original design, but in some interim avionics revisions the slot housed a Garmin 400 navigator.

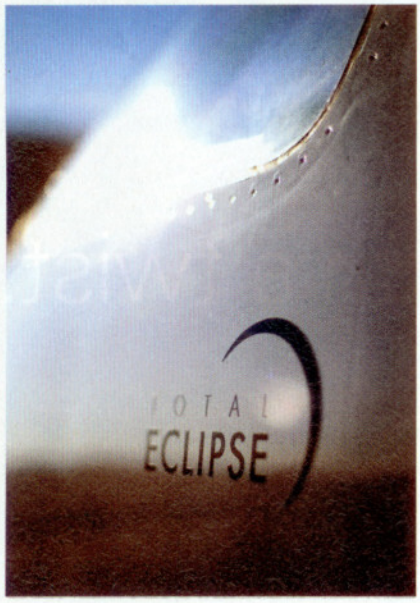
First, the 260 or so Eclipse 500s originally delivered were never really "complete," in the sense that they lacked many of the avionics and systems capabilities pilots expect from a jet.

Nonetheless, the fleet since the company's bankruptcy liquidation in 2009 has proven reliable and popular. The original company had many orders right up to the point that it had to close its doors for lack of capital. True, many of those orders were for aircraft at impossibly low prices, but even at projected higher prices the market seemed solid. So a company that can offer such an airplane with all of the capabilities expected—even at a much higher price point, should be able to survive, even in this tough market.

A second factor in the new owner's favor is the fact that Sikorsky Aircraft is a shareholder. The relationship allows the new Eclipse Aerospace to benefit from the manufacturing and supply chain management expertise available from a large, established company (Sikorsky is owned by United Technologies—a Fortune 100 company, which also owns Eclipse engine manufacturer Pratt & Whitney). Eventually, subassemblies for the new Eclipse model, the 550, will be manufactured at a Sikorsky-owned plant in Poland. Final assembly and deliveries will take place at Eclipse's Albuquerque, New Mexico, headquarters.

In an exclusive video interview with AOPA Live This Week in early June, CEO Mason Holland detailed the differences between the original Eclipse 500 and the 550—almost all of them related to avionics and systems.

Most significant, the IS&S microprocessors driving the Avio Integrated Flight Management System get an upgrade that will allow the inclusion of such advanced capabilities as synthetic vision and enhanced vision; in addition, the cockpit displays will be of higher resolution.



THE TOTAL ECLIPSE package, an upgrade to the original fleet, includes numerous interior enhancements that will carry through to the new 550. Many operators remove one of the four cabin seats, as shown here, to ease ingress and egress.

According to Holland, the 550 will also see the integration of autothrottles, a long-promised enhancement that is usually found only on much larger and more expensive aircraft. However, autothrottles were envisioned for the Eclipse since its original design in the early 2000s and all of the airplanes were equipped with autothrottle servos, though the system was never implemented or certified.

We last flew an Eclipse 500 in December 2011, which included the latest upgrades to the Avio cockpit, the flight management system. Prior versions of Avio did not have the integrated avionics system that one expects in a jet, but the IS&S flight management system pulled those pieces together into a well-organized cockpit. Still, the screen resolution seemed lacking, so reports of the 550 having higher resolution screens is welcome news.

Eclipse Aerospace has been busy since its acquisition of the liquidated assets in 2009 upgrading many of the existing airplanes in the field to what it has called Total Eclipse status, which included the FMS and a series of additional upgrades made to later production models. Meanwhile, it has secured the equity investment from Sikorsky and cemented manufacturing and other contracts with Sikorsky and virtually all of the suppliers necessary to restart production.

The FAA granted the company a production certificate for its factory in April 2012. The 550 will be built on the 500's original type certificate, another strong asset that may lead to the company's success where others have failed.

International dealers witnessed the mating of the first subassemblies for the first 550, serial number 1001, at an event at headquarters in late May. Holland says that airplane will fly in mid-2013 with first deliveries planned for July 2013. The company will build a few airplanes later in 2013, but plans to be ramped up to a production rate of about 50 to 60 airplanes a year in 2014. Meanwhile, a transition of the manufacturing tooling to the Poland plant will occur over an 18- to 20-month period as the workers there are trained.

Training for new and existing Eclipse owners will continue at the SimCom training center in Orlando. SimCom has two Level D full-motion simulators in service, with one being upgraded to FMS status. **AOPA**

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