

The Thorp T-211/Sport, which was FAA-certified to compete with the Cessna 150 trainer, is now a low-cost kit made from FAA-approved parts.



“Building a Certified” Kit Airplane

We become reacquainted with the Thorp T-211/Sport.

BY KEN ARMSTRONG

It's rare that builders can pick a kit airplane that is essentially a certified aircraft, but the Thorp T-211/Sport kit is such a project. The kit is roughly equivalent to receiving a new Cessna 150 Commuter in a big box that is ready for quick assembly. Builders finish with a new aircraft that provides the Cessna's performance for less money than a high-time used Cessna. For that matter, two Cessna employees have bought kits and two others are considering purchases.

The rights to John Thorp's design have an interesting history. Indus Aviation recently purchased the rights to the fully certified Thorp T-211 from Venture Light Aircraft Resources, LLC.

VLAR had bought the T-211 rights when the previous production facility ran out of money. Indus is offering a quickbuild version of the kit to U.S. builders for about \$22,000. Although the finished product will not be certified like a factory-built aircraft, all parts for the project come from certified stock. In fact, Indus plans to offer a certified version of the aircraft for the Canadian and Australian markets.

Ram Pattisapu, president of Indus, added *Sport* to the end of the name in anticipation of the proposed SportPlanes™/light-sport aircraft category. “When the SportPlanes™ category is attainable, we hope to be able to offer a

nearly complete kit for around \$60,000,” Pattisapu said. Clifford Rock, head of U.S. operations for Indus, said that once the aircraft was certified under the new category, the company would allow builders to finish their nearly completed aircraft at its hangar in Dallas, Texas.

“What the person [would do] is go through a 16-hour course, then have the opportunity to do an inspection on their own plane,” Rock said. “They're not buying a ready-to-fly airplane; they're buying an airplane that's almost ready to fly.”

Indus plans to produce the T-211/Sport primarily in India. Pattisapu is a native of India and noted that the plane will be called the Sport E there



VLAR owned rights to the T-211 before Indus Aviation took control of the design.

in an effort to make the plane's Experimental status known. He said that general aviation is "virtually non-existent" in India, and he hopes that the Sport E will help rectify that.

John Thorp, the Legend

Thorp created a long line of successful aircraft including the popular Piper Aircraft Cherokee series and the highly successful T-18 plansbuilt Experimental.

According to VLAR President Larry Rebling, Thorp saw the need for a lightweight trainer more than three decades ago and created the T-211 to compete with the 350-pounds-heavier Cessna 150. Obviously, a much lighter aircraft with the same powerplant as the popular Cessna two-seat trainer would outperform it. The T-211 did, but marketing didn't.

Thorp went on to design other successful products, but the jigs and materials for his diminutive trainer went to the auctioneers after he died. Years

later, with factory-built and kit airplane prices soaring above many pilots' means, Thorp's T-211 has surfaced as an inexpensive alternative.

Rock said that the T-211/Sport was a good choice for Indus. "It's already certified, and it's a simple, easy-to-build design. The controls are light and harmonized. It's an extraordinarily safe airplane to fly. It flies like a much heavier airplane than it actually is."

Flying It

Before Indus acquired the rights to the T-211, I had a chance to fly the plane at VLAR's Arizona facility. The empty weight of our lightly equipped demonstrator was 806 pounds, leaving room for a full fuel load of 24 gallons and two 160-pound pilots. Unfortunately, we both push 200 pounds, so we opted for half fuel.

The cockpit is 1 inch wider than a Cessna 150 but still a bit on the snug side, and the space behind the seats is not cavernous as it is on the Cessna.

The similar Continental O-200 is easily started, and I noted on this demonstrator that there was significant roughness that did not diminish with warmup. It turned out one of the engine mount bushings was shot.

Ground handling is excellent with the steerable nosewheel. The ball bearing construction in the aileron and stabilator pushrods provides light, precise control with almost no static friction.

We depart from Tucson's Ryan Airport on Runway 6R with a density altitude of 3305 feet. Acceleration is somewhat poky due to our gross weight and the fairly high density altitude. This keeps us groundbound for more than 1200 feet until we achieve 60 mph. The 350-fpm rate of climb in light turbulence is also unastounding. The bonus is provided by the control forces, which are light and responsive at all speeds. While a pitch trim system exists, it's hardly necessary as the aircraft remains in near perfect balance



It's not exactly a glass cockpit, but the T-211 has enough panel space for the basics, despite its many-decades-old design.

This kit prototype was built in the VLAR hangar.



through the broad spectrum of airspeeds flown.

Leveling at 5500 feet with 2500 rpm, we achieve an indicated airspeed of 87 mph (96 mph true). Lowering the nose, I find the airspeed picks up fairly quickly, and I suspect the engine isn't producing full power.

Time for slow-speed handling. Here, the T-211/Sport excels. Cavorting at a safe altitude in unusual maneuvers shows the aircraft is responsive and fun for sport flying.

Up high we find the clean, power-off stall is 60 mph indicated. With flaps extended it drops to 55 mph. Surprisingly, with 1700 rpm dialed on the tachometer to simulate a stall while turning to final, the T-211/Sport shows its gentle manners by nodding off slightly at 40 mph. All stalls are preceded by light buffeting and slight pitch-downs. Many passengers wouldn't know the aircraft stalled.

On returning to the landing pattern, we find the Thorp is easy to fly and forgiving in every way. A full-stop landing takes about 400 feet of landing roll, and the little plane is easily guided along the narrow paved strips between hangars to the VLAR facility.

As the propeller cackucks to a halt, it's time to consider the aircraft's performance and find a niche that best describes this plane's place in the market.

Builders' Verdicts

Builders such as Robert Throm, a veterinarian in Snohomish, Washington; Larry Pritchard of Fountain Hills, Arizona; and J.J. Miller of Manteca, Cal-

ifornia, are all enthralled with their ability to build a low-cost, sporty aircraft with few shop skills. They all report being delighted by the kit quality and support. As each approaches the completion of his kit, he is amazed at how little effort it took.

Comments like this are rare as most builders find that airplane kits typically take far more time and effort than the buyer anticipates.

Throm looked for almost six years to find a plane that would be a good trainer, fun, but most importantly that he could complete. Looking at building times of five to 10 years for many projects, he says that his tight schedule precluded building a kit until he discovered the T-211/Sport. The all-metal airframe allows him to work for an hour at a time without "temperature hassles or long commitments for fiberglass layups."

Pritchard says, "This is a kit that can truly be built by a person with a normal mechanical aptitude, an air com-

pressor, and several hundred dollars worth of tools. I am a conservative flyer, and this is the plane for me."

Miller says, "I was very suspicious when I looked over the easy-to-read manuals. This could not be this easy. I had looked over my other two choices for aircraft, and their manuals did not even come close! I had to go over them several times before I realized how easy it really is.

"I just didn't believe it was so concise. You wonder if this is real," he said. Miller's views are broadly held by the other builders. They are enthusiastic and delighted.

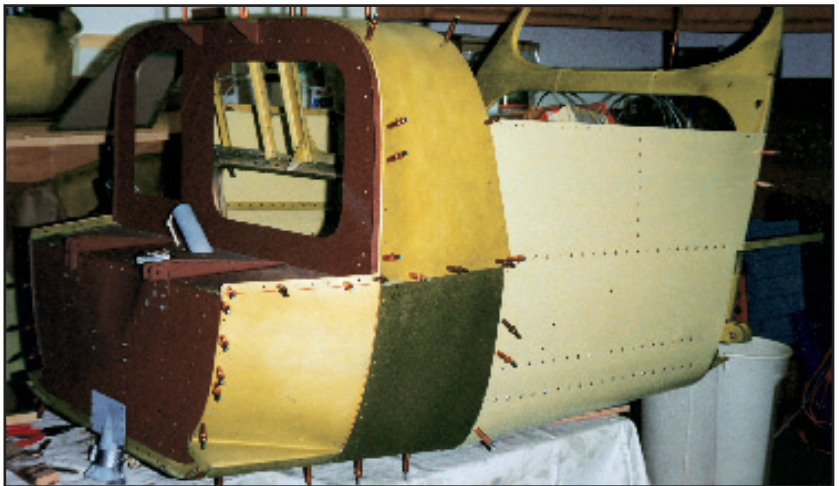
Certified Conclusions

The T-211/Sport may have a sports car's response but as aircraft go, it certainly isn't a hairy-chested, fire-breathing variant. It is more like the VW bug of yesteryear. This little Thorp also offers an inexpensive, entry-level kit that many could afford and almost anyone could build. The fact that the T-211/Sport is



Thorp T-211/Sport

Engine	Continental O-200	Jabiru 3300
Power	100 hp	120 hp
Propeller	Sensenich metal	wood
Empty weight	750 lb.	700 lb.
Gross weight	1270 lb.	1230 lb.
Power loading	12.7 lb./hp	10.6 lb./hp
Cruise speed	120 mph	130 mph
Length	18 ft.	
Height	6 feet 3 inches	
Wingspan	25 ft.	
Wing area	105 sq.ft.	
Wing loading	12.1 lb./sq.ft.	
Takeoff roll	300 ft.	
Landing roll	400 ft.	
Fuel capacity	24 gallons	
Range	475 miles	
Rate of climb	750 fpm	
Service ceiling	12,500 ft.	



The T-211/Sport is an all-metal design. Indus says production will primarily be in India.



All of the parts for the T-211/Sport kit, including the wing, come from certified stock.

being built by people with a wide variety of backgrounds (a veterinary doctor, Cessna employees, an airline pilot) speaks well of its appeal to a broad market.

Because this airplane will be built by amateurs, the final product will be licensed in the homebuilt, Experimental category. This is a benefit. Although amateur-built aircraft can't be used for hire, builders can perform all their own maintenance, repairs and the annual condition inspection. That is based on the builder getting an FAA repairman certificate for that individual aircraft. All of this tends to keep ownership costs low.

This fits nicely with the low purchase price for the kit and the miserly operating costs associated with the recommended engines.

FOR MORE INFORMATION, contact Indus Aviation, 5681 Apollo Drive, Dallas Executive Airport, Dallas, TX 75237; call 720/480-2967; e-mail crock@indusav.com; web www.indusav.com.



The prototype features corrugated wings and control surfaces for high strength to weight.



The demonstrator is powered by a Continental O-200 engine.