

Black Stallion

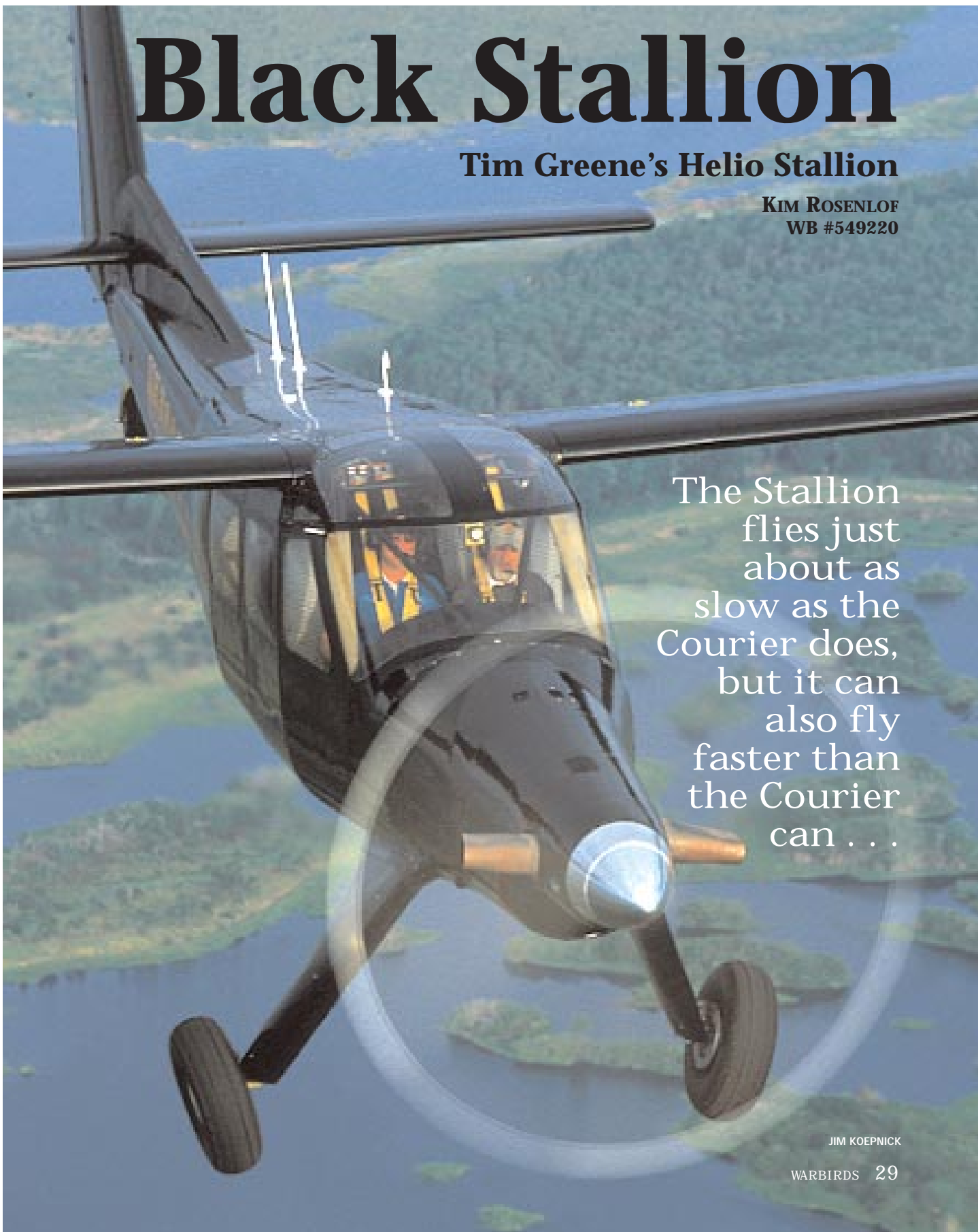
Tim Greene's Helio Stallion

KIM ROSENLOF
WB #549220

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flies just
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JIM KOEPNICK

WARBIRDS 29





Sun 'n Fun EAA Preview



PHOTOS MARK GODFREY

Tim Greene

With an oddly long nose housing a Pratt & Whitney PT6 turboprop engine, high-wing tail-dragger configuration, and bulging tip-tanks, the unconventional looks and glossy black paint scheme of Tim Greene's (WB #550207) latest acquisition makes people stop and stare. Perhaps the first thing they want to know is, "What is it?" The short answer is the prototype Helio AU-24 Stallion, serial number 1, the only one of its kind ever built since all other Stallion models were AU-24As. The next thing they want to know is,

"Why is it black?"

"Rodney Powers at Atlanta Air Salvage started the concept of the Black Stallion," Tim said during an interview at the 2003 Sun 'n Fun EAA Fly-In. "It was his idea. All the old photos of the military versions were in olive drab, and in black and white photos, they looked black. So I had a feel for what it was going to look like. It looks more mysterious [painted] black."

Helio Aircraft Corp., a division of General Aircraft Corp. (GAC), designed the Stallion for the civilian utility market in the early

1960s with its first flight in 1964. The Stallion was Helio's response to a 1971 U.S. Air Force requirement for a light utility short takeoff and landing (STOL) gunship for use in Southeast Asia. The program, called Credible Chase, evaluated both the Stallion and its competitor, the Fairchild AU-23A.

Its findings were not encouraging: major problems with the Stallion included a low attack speed of about 135 knots, a low operating altitude below 5,000 feet, no "zoom" escape capability after an attack run, and an extreme vulnerability to antiaircraft fire, according to the aircraft's profile on the U.S. Air Force Museum's website (www.wpafb.af.mil/museum). Upon completion of the evaluation flight tests in July 1971, both aircraft were found unsuitable for combat operations, but that discovery didn't completely kill the Stallion program. Instead, 14 Stallions were eventually delivered to Cambodia for use in border surveillance and counter infiltration roles.

“There are rumors that the CIA operated [the Stallions] in Cambodia and Laos,” Tim said. “There’s this shroud of mystery surrounding them with Air America, the CIA, and all that. Several Vietnam pilots have stopped by that saw, flew, and have intriguing stories about Stallions. The ‘A’ models had a 20 mm Gatling gun out the side, two hard points on each wing, and a hard point on the belly for bombs. And I’m told [some had] a hatch out of the bottom for paratroopers to drop out of.”

Tim’s Stallion, the prototype, was not among those delivered to Cambodia, but his paperwork is fuzzy on where exactly it did serve. He knows that it was at Eglin Air Force Base conducting combat tests in 1972, and he has FAA transfer documentation that shows it was registered in Port-au-Prince, Haiti; Pennsylvania; Washington state; and South America. He has talked with previous owners, including one who suggests the aircraft spent a great deal of time under Air America’s control.

Now living in Cashiers, North Carolina, Tim has been interested in aviation since before college. He graduated from Embry-Riddle Aeronautical University in Daytona Beach, Florida, in 1967, but the first wave of pilots coming out of Vietnam just then made it hard

for a young kid with a degree and little flight experience to get a job. After a few years of knocking about trying to build



Helio Stallion Performance and Specifications

DIMENSIONS

Wingspan	42.6 feet
Length	39.6 feet
Height	15.7 feet

POWERPLANT

Engine	Pratt & Whitney PT6A-34 750 hp
Propeller	Hartzell 101-inch three-blade, reversing

WEIGHT AND LOAD

Gross weight	6,100 pounds
Empty weight	3,100 pounds
Useful load	3,000 pounds
Seating capacity	10 (pilot/passengers)

TAKEOFF DISTANCE (at sea level)

Ground run	320 feet
Distance over 50 feet	750 feet

RATE OF CLIMB

2,200 feet/minute

SPEED

Minimum, fully maneuverable	37 knots
Maximum cruise (at 10,000 feet)	188 knots
Normal cruise (13,000 feet)	175 knots

RANGE

1,050 nm (223 U.S. gallons, tip tanks installed)

SERVICE CEILING

29,000 feet






JIM KOEPNICK



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time, Tim went back to school and got a second degree in architecture, keeping aviation as a hobby and eventually buying a series of different aircraft types.

After first owning a Maule tail-dragger, Tim found and fell in love with the Helio Courier. He purchased a Helio Super Courier 295 and had been flying it for several years when chance brought him into Atlanta Air Salvage (AAS) nearly four years ago.

“I was picking up an engine for

another project, and they had a lot of Helio Stallion memorabilia on the walls,” Tim said. “I said, ‘It’s interesting, I’ve never seen one, and you don’t hear much about Helio Stallions.’ And they said to go in back because one was being restored!”

Tim found out that AAS owner Rodney Powers had recovered the plane from Bogotá, Columbia, where it was rumored to have been confiscated in a drug seizure. Rodney had nearly four years of

restoration into the long-abandoned airframe, and was willing to sell it as a project. Tim worked on the Stallion at his home, which is nestled beside a grass strip, for approximately nine months until it was time to put the wings together.

At that point Tim called friends at Clemson, South Carolina-based Vintage Aircraft, about 25 miles south of Cashiers, who were somewhat idle after 9/11 because their airport was within 10 miles of a nuclear power plant and no one could fly in or out. Vintage spent another two years getting the aircraft to flying condition. Because Tim’s interest was in a flying machine and not authenticity per se, he opted to make several changes to modernize the aircraft.

“One thing we changed was the

fuel system," Tim said. "In my estimation, it was an antiquated fuel system, so we upgraded that to more current technology. We also changed the brakes. The original gear was a cross wing and parts were unavailable, so we changed it to a Cleveland system. We added a panel upgrade, which was probably the most expensive change."

The restoration efforts were completed just in time for Sun 'n Fun 2003, where they earned the Judges' Choice - Military Prototype award. Tim also won the same award at EAA AirVenture Oshkosh 2003.

In comparing the Stallion to the Courier, Tim says that it's obvious the same folks designed both airplanes. "There are so many similarities, the way things were fabricated and done," Tim said. "The Stallion flies basically like a big Courier. It's heavier, has more power and more torque, but it is very similar to the Courier. The leading edge slats come out at about the same speed, so slow flight and landing are very similar. It flies just about as slow as the Courier does, but it can also fly faster than the Courier can."

The speed comes partially from that long nose, or rather, from the engine responsible for that funny-looking nose. The Pratt & Whitney PT6-27 turboprop engine puts out 750 hp versus the 285 hp of the Courier's engine. The Stallion also has a 42.6-foot wingspan compared to the Courier's 39 feet. Both of these design features enable the Stallion's cruise speed to top 180 knots.

"The Stallion's an amazing aircraft," Tim said. "It was developed in the early '60s, and yet I'm not aware of any airplane that can come close to what it can do as far as extremes. Slow flight versus high speed cruise, payload, and just the versatility of it. All of it's just amazing. It's still a viable concept." ✈

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