

A-32

U K R A I N I A N

VIXXEN



THE AEROPRAKT A-32 BY HAL BRYAN

FOR SOME PEOPLE, the first thing that gets you about this airplane is the name — Aeroprakt. It's fun to say. Something about the smooth and evocative vowels of "Aero" anchored by the stern and stolid consonants in "prakt" instantly conjures an impression of rugged elegance. English speakers may lightly stumble over the name the first time they see or hear it, but once they've flown it, it all makes perfect sense. The latest from Aeroprakt, the A-32 Vixxen, is a solid and stable airplane with great STOL performance that also happens to be a slippery and responsive little cross-country machine.

"It's a well-thought-out, simple airplane," said Dennis Long, EAA 1020229, the principal behind Aeroprakt USA, the exclusive importer in North America. "They've designed it to be serviceable around the country, around the world, without a lot of specialized airframe parts."

A-32

BORN BEHIND THE CURTAIN

Yuri Yakovlev, apparently no relation to the legendary Alexander Sergeyevich Yakovlev of Yak aircraft fame, studied at the Kuibyshev Aviation Institute, now the Samara National Research University, on the east bank of the Volga River in Samara, Russia. He graduated in 1986 and went to work for the Antonov Design Bureau in Kiev, Ukraine. He started an aircraft design club with a group of friends, naming it Aeroprakt after a similarly named group he was involved with in school at Kuibyshev.

Yuri and the new Aeroprakt group took a design he'd been working on in school and developed a two-seat, high-wing primary trainer called the Aeroprakt T-8. The club used the T-8 for its own flight training and then debuted it publicly at an ultralight fly-in in Riga, Latvia, in 1989. The airplane got a lot of attention and inspired its share of imitators. Two years later, after a number of upgrades, the T-8 won first prize at a fly-in competition held in Chernihiv in northern Ukraine. While the T-8 matured, the group had been designing the A-20, a tandem high-wing pusher taildragger that flew surprisingly well on just 50 hp. The club was formalized as a division of a larger joint Soviet-Finnish group, based in Kiev with Yuri as chief designer and Oleg Litovchenko as director.

A CHANGED WORLD

Then, history stepped in. A few uncertain months after a failed coup, the Soviet Union collapsed at the end of 1991, and Aeroprakt was spun off into its own company. The fledgling company faced tremendous financial trouble but managed to put the airplane into production as the A-20 Vista, now powered by a 65-hp Rotax 582. From 1993 through 1995, the A-20 won or placed well in competitions at fly-ins in Russia, the Czech Republic, Poland, and the United Kingdom. The airplane officially went into production and sold well in Europe, Asia, and the Middle East, before making its United States debut at EAA AirVenture Oshkosh 1999. The company steadily expanded and introduced more aircraft, including the side-by-side A-22 Foxbat (a fun nod to NATO's Cold War code name for the famed MiG-25), the amphibious A-24 Viking, and the twin-engine A-26 Vulcan.

SUCCESS IN THE UNITED STATES

Dennis was born in Pennsylvania; grew up in Nebraska; and has called California, Oklahoma, and Tennessee home over the years. He's now added Arkansas to the list after recently moving the business to a small town called Searcy. His industrial maintenance and engineering background took him through jobs at a number of plastic and molding businesses, as well as a stint with Ford Motor Co. He got his start flying ultralights back in the heady days of the 1980s but drifted away from aviation as family and career took center stage.

Then, about 25 years later, after work had taken him to Tennessee, he was led back into the fold.

"[I] ended up seeing an ultralight fly overhead one day in the small town I lived in, and I followed him out to a place where he was landing at and got to visiting," he said. "In my retirement days, I thought I was just going to fly ultralights and have fun."

He flew Phantoms, Challengers, Quicksilvers, and whatever he could get his hands on. Then, he bought a two-seat Kolb FireStar and got his private certificate.

"When I got back into flying again, I was just looking for something a little bit more refined, maybe a little faster, but still a back-country-type airplane," he said. "And I stumbled onto an Aeroprakt. It was a pusher version, the A-20 that they used to make. And I bought one, and I put 850 hours on it in about three years."

He loved the airplane but had no idea that it would lead to a career change.

Dennis had no intention of becoming a dealer, representative, or anything of any kind to do with airplanes.

"I had a day job," Dennis said. "But that day job was looking to change, so I just started talking to the factory, emailed, I told them the airplanes are such good flyers and so well built that they needed better representation in the United States."

The company's response was to ask Dennis if he was interested.

"I said, 'Well, not really, but they need somebody,'" he said. "Well, over the next year we emailed back and forth and, yeah, I decided I'd take it on. I was planning to do it part time while I still had my day job."

As his day job was changing, he decided to take it on full time.

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"It's worked out pretty good," he said. "I started in 2015, and to date, I've sold 27 airplanes. ... By getting the name out there and getting the support network set up, people are coming back to the airplane. It's a great flying airplane for the cost."

That cost starts at \$115,000, so it may not be the cheapest light-sport aircraft out there, but it's also far from the most expensive.

YOU GET WHAT YOU PAY FOR

Aeroprakt developed the A-32 Vixxen from the earlier A-22 Foxbat by streamlining it, adding fairings, and shortening the wings by about 10 inches, all of which added 20 knots while using the same engine, a 100-hp Rotax 912 ULS. The A-32 first flew in 2014, went into production in 2015, and was sold as a kit in the United Kingdom but as a ready-to-fly factory-built aircraft everywhere else. The Vixxen, like the Foxbat, is a high-wing tricycle-gear airplane that seats two, side-by-side. The airplane is almost all metal, including the fuselage, with fabric covering on the wing and control surfaces. Composites are used for the cowlings, door frames, and a few other odds and ends.

From the outside, the airplane looks clean and well streamlined, with compound curves smoothing out the edges, especially around the cowlings. Thanks to all of the windows, including the tall wraparound windscreens and the big bubbles in the doors, you somehow get the impression that the cockpit is the focal point of the design and the rest of the airplane was built around it. The cabin is extremely wide at 48 inches. Compare that to 38 inches on a Cessna 150 or 40 inches on a 172, and you'll be instantly grateful for all of that extra elbow room. The Rotax 912 ULS swings a three-bladed composite prop. The tightly faired cowling brings the whole airplane to a sleek and streamlined point.

At the other end, the trim monocoque fuselage tapers to an ample and angular vertical stabilizer and a fully moving horizontal stabilator. Company literature lists several benefits of this configuration, including lighter control forces, reduced drag from trim, and the fact that having fewer moving points means that it is simpler to produce and generally more reliable. The Vixxen sits atop 6-inch tires, on wheels with Matco hydraulic brakes, and the airplane carries 24 or 30 gallons of fuel in a pair of wing tanks.

PHOTOGRAPHY BY JIM RAEDER



Aeroprakt offers customers a choice of controls, either a traditional two-yoke system, or a single center stick with two grips (pictured).



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UKRAINIAN VIXXEN



THE AIRPLANE TRACKED ABSOLUTELY STRAIGHT AND TRUE AND SEEMED
TO RIDE OUT THE SUMMER BUMPS LIKE A MUCH HEAVIER AIRPLANE.
IT FLEW HANDS-OFF WITH NO TROUBLE AND NEVER ASKED
FOR MUCH OF ANYTHING IN THE WAY OF TRIM.

SO MANY CHOICES

Choosing the fuel tanks — Dennis said that most people opt for 30 gallons (2-by-15) as opposed to 24 (2-by-12), which isn't surprising — is far from the only choice you'll have when you place an order. You can choose your color, of course, and opt for tundra or standard wheels with or without mud guards or a set of sleek wheelpants. If you want to remove the wheels in the winter, you can add a set of Titan skis. Floats, both amphib and straight, are also available. As of now, the factory has only approved Full Lotus floats, but choosing another brand would mean that the airplane would be built as an experimental light-sport aircraft, as opposed to a special light-sport aircraft (S-LSA). Dennis builds and has each new airplane initially certificated as an S-LSA, leaving the customer the option to ultimately switch back if they decide to go experimental for one reason or another.

A ballistic parachute is an option, one that Dennis said about 60 percent of his customers select. As far as propellers are concerned, all options are three-bladed and made from composites, but the airplane can be equipped with a Kiev semi-sciimitar prop or, from DUC Hélices, a WINDSPOON or a ground-adjustable FLASH-3. Regardless of which propeller you choose, each configuration includes a spinner. A number of LED landing light options are available, including one or two in the wing, and a wig-wag circuit for better visibility.

Inside the cockpit, you can choose dual yokes or a single stick with two grips in a Y-configuration at the top. The dual throttles come straight out from the panel but end in an L-shape that gives you something more tactilely satisfying to push on than just a typical, simple knob. Cabin heating is an option, as are defroster fans, key locks, and photo windows for the doors.

When it comes to the instrument panel, that's where the options become effectively unlimited. Full suites of analog, glass, or just about any combination are available. While some customers who want glass have opted for Garmin or MGL units, the Dynon SkyView HDX has proven to be very popular.

"You actually get to design your own panel layout, which is kind of special for a lot of my customers," Dennis said. "You don't have to get everything exactly where the manufacturer [specifies]. Part of the order process is you design your panel, they do a drawing, [and] send it back to you. You get full approval on where you want everything located on the panel."

Once you've made your choices, it'll take a little time for your airplane to be built to order.

"The factory part of the build takes 90-120 days from confirmed order, then about 40-60 days for shipping and a couple of weeks for the FAA inspections," Dennis said. "Most are approximately five to six months into your hands."

SURE, BUT HOW DOES IT FLY?

When you get into the airplane, the first thing you notice — after the big, self-lifting doors that make getting in so easy — is the visibility. It seems like there are windows everywhere around the startlingly roomy cabin. Engine start is typically simple, just like any other Rotax, and the airplane is responsive and easy to maneuver on the ground. I flew an A-32 with Dennis at AirVenture Oshkosh 2019. The first hint of how effective that stabilator was came when he demonstrated a soft-field takeoff, rolling from the run-up area straight onto the runway with the nose wheel never touching the ground.

I wasn't able to measure the takeoff distance with any precision, but I'd estimate it at no more than 100 yards or so. This is definitely an airplane that's ready to fly as soon as you are, if not sooner. The airplane climbs sportily at a best angle of climb speed of 54 knots or a best rate of climb of 65 knots. Once we were up to about 1,000 feet AGL, Dennis and I just motored around while I got the feel for the airplane. The controls are solid and smooth with no slop. The full-span flaperons make the airplane as responsive in roll as the stabilator does in pitch. It's a little apples-and-oranges, but the feel reminded me a little bit of a BushCat, in the sense that the airplane seemed strong and sturdy, firmer than I'd expected, but also immediately responsive without being twitchy (see "Behold the BushCat" in the December 2019 issue). That sensation holds true for more than just the

controls. Regardless of power setting, the airplane steadfastly refused even the slightest buzz or rattle — it was just rock solid. Dennis described it well when he said that the A-32 feels "like a one-piece airplane."

At the top end, we saw a true airspeed of 130 mph, with a fuel burn of 6 gph. Throttling back to 5-5.5 gph still gave us about 120 mph, so it's safe to say that the Vixxen is a credible and economical cross-country cruiser. The airplane tracked absolutely straight and true and seemed to ride out the summer bumps like a much heavier airplane. It flew hands-off with no trouble and never asked for much of any thing in the way of trim. At slow speeds, the airplane still did everything I asked it to do,

though it is an airplane that doesn't like to slow down in the first place. Stalls start at an indicated airspeed somewhere in the high-30s, with a slight buffet in the belly, and then a quick nibble as the airplane finds its way back to high-alpha slow flight, all with no perceptible loss of aileron authority.

When it came time to head back to the airport, the hardest thing to do was to get the airplane to descend. Slowing down through 80 knots and then 70, the airplane just wanted to hold altitude, and we had to push it a bit. Adding a notch of flaps finally helped. Then, once on short final, full flaps and a speed of about 50 knots brought us easily and smoothly down to the grass, and an uneventful rollout that was about the same as the takeoff run.



The wide gull-wing doors hinge up out of the way, making it easy to get into the spacious cabin, which features ergonomic appointments like the L-handled throttles.

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The A-32 is a clean and straightforward airplane with a surprisingly wide performance envelope.

SPECIFICATIONS

AIRCRAFT MAKE & MODEL: Aeroprakt A-32 Vixen
CERTIFICATION: Light-sport aircraft

LENGTH: 20 feet, 7 inches
WINGSPAN: 32 feet
HEIGHT: 7 feet, 3 inches

MAXIMUM GROSS WEIGHT: 1,323 pounds
EMPTY WEIGHT: 705 pounds
FUEL CAPACITY: 24 gallons (30 gallons optional)
SEATS: 2

POWERPLANT MAKE & MODEL: Rotax 912 ULS
HORSEPOWER: 100
PROPELLER: Three-bladed composite, optionally ground-adjustable
CRUISE SPEED/FUEL CONSUMPTION: 60-130 mph/4.5-5.5 gph

V_{NE}: 150 mph
V_{SO}: 30-35 mph

For more information:
www.AeropraktUSA.com

SERVICE AND SUPPORT

For those who are intrigued by the Vixen but may balk at the idea of buying an airplane with such exotic roots, Dennis is naturally quick to reassure. First of all, the Rotax 912 series is pretty much universal, so no mechanic is likely to be scared off by the powerplant. Second, the airplane uses all AN hardware, so there's some strong familiarity there.

But, for Dennis, the best part of working with the company is the people.

"They're absolutely wonderful people," he said. "I'm a country boy growing up, and they've got that same kind of feel. They're friendly, they're open, they talk about suggestions [and] things they're working on. They treat me very well. I mean, they'll bend over backward to keep the time frames short. Little questions I have from customers, I take directly to them. ... I can't imagine anybody being treated better."

It took Dennis a while to find his niche in the aviation world, but that's the way these things go sometimes. By all accounts, he couldn't be happier.

"This just kind of came back to me and fell in my lap as a chance to turn something that I enjoyed as a hobby into work," he said. "Now, maybe I shouldn't say that's a good thing, but so far it still is."

Strong sales of an impressive and capable airplane certainly sounds like a good thing to me, not just for Dennis and Aeroprakt, but for general aviation as a whole. **EAA**

Hal Bryan, EAA Lifetime 638979, is senior editor for EAA digital and print content and publications, co-author of multiple books, and a lifelong pilot and aviation geek. Find him on Facebook, Twitter, and Instagram at halbryan or email him at hbryan@eaa.org.