Aviat Husky A-1B 200

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The Aviat Husky

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Bigger bark, Better bite

More power and a new wing

The bush-plane market is a tough one to crack. The pilots are often experts and demand a lot out of their airplanes. Backcountry strips demand even more. Things simply have to work. Period. If not, time to improvise or face a long hike out.

The Aviat Husky line of airplanes is designed to get you there and back. Huskies come from a high-powered and crisp-handling pedigree, made by artisans in the thin air of Afton, Wyoming. So how do you improve one? For Aviat, with its aerobatic background (think gyrating Pitts Special), this meant adding power and tinkering with the aerodynamics. In other words, amping up the fun meter.

But unless you really know Huskies, the new 200-horsepower Lycoming-powered A–1B 200 version may not look altogether different from the older 180-horsepower A–1B 180 model. Now zoom in. Notice the dual exhaust pipes, redesigned cowl flap, and new "bump cowl" engine access door.

Underneath the hood, you'll find dual oil coolers. Out in front, there's a composite constant-speed MT propeller (available as an option/replacement on other Husky models), instead of the old metal one. Now look at the wing. It has new extended flaps and dynamically balanced ailerons (standard on the other 2005 Husky and newer models). The latter improvement makes for a cleaner wing and eliminates the need for spades, translating into a roll-rate increase of 50 percent.

Time to play

After seeing the initial specs, I was anxious to get my hands on this backcountry rocket ship. I had previously flown the 160-horsepower A–1B 160 (originally dubbed the "Pup") on street tires (see "Ready to Play," January 2004 *Pilot*) and the A–1B 180 on monster tundra doughnuts. Both models were carbureted and had plenty of oomph, even at high density altitudes, and were light on the controls. Our testing range this time around is southeastern Kansas, one of the more friendly areas of the country for the kind of low-level flying the Husky likes to do. In the backseat is Dwayne Clemens on the eve of his early retirement as a Raytheon production test pilot. Somewhere out there are the Flint Hills, a short hop from Wichita. Time to play.

You first notice the new fuel-injected engine and prop combination on start-up. The composite prop takes up to 30 pounds off the nose and lets the air molecules know who's boss in a hurry with the rapid

A more powerful engine with dual exhaust, a composite prop, and a redesigned wing with extended flaps and dynamically balanced ailerons take the airplane to a new level in the bush. Performance has improved all the way around.

throttle response. The dual exhaust barks like a different breed of dog. The takeoff run in all Huskies is ridiculously short. In the 200-horsepower Mighty Dog, it's around 300 feet, even when you're not trying for a short-field takeoff. Add notches of flaps, and you can almost operate in and out of helipads. Taking off in 200 feet can be done with ease by most primates. Once airborne and under gross weight, we climb at better than 1,700 fpm.

With the extra 20 fuel-injected horses and the improved wing, it's hard to believe we're not flying a certified aerobatic airplane. It wants to roll, sure, and it would very much like to do a loop, but we keep the Husky within its legal limits. Hopefully, Aviat will certify it in the Aerobatic category someday; the company has kicked the idea around for years. The Husky also wants to keep climbing toward the heavens. Aviat says the new airplane is 8 knots faster than the 180-horsepower model at 7,500 feet. Although we didn't test it at the higher altitudes, the 200-horsepower version really shines at 10,000, where it can climb some 300 fpm faster than the 180-horsepower model. With a service ceiling of 20,000 feet, it shouldn't have any trouble operating in the mountains.

Level at 3,500 feet with the manifold pressure set at 25.6 inches and 2,500 rpm on the tach, speed checks give us 121 knots true airspeed, consistent with factory numbers. The fuel flow is 10.8 gph. Set up for long-range cruise, that Lycoming IO-360 sips fuel. At 20.8 inches and 2,100 rpm, it burns 7 gph at 102 KTAS. The more powerful engine with its more efficient fuel-injection system actually burns 1 gph less than the 180-horsepower model. This should keep the new Husky in the air for some six hours.

One interesting tidbit: The engine and prop combination provides noticeably less vibration for those long cross-countries. It seems quieter as well. Stalls in all Huskies are nonevents. After a light buffet, the airplane likes to get right back to the business of flying.

Working hard

We fly low, following train tracks, and circle lakes over the Flint Hills. The control harmony is excellent. The new ailerons have a shorter span and deeper chord, producing less adverse yaw and lower stick pressure. We count cattle and horses as rancher-pilots must. This is where the Husky is happy, acting more like a border collie, working hard but having fun doing it.

The airplane is robust but nimble, and you know you can put it down on a doormat should something strange happen to that brand-new engine. One bonus of the composite prop in the backcountry is that it will shatter instead of bend. This could very well save the engine. It's a lot cheaper to hike in a new prop than helicopter out a whole airplane.

On the subject of propellers, let's separate out what the new prop has done for the airplane. Owners of older-model Huskies can bolt on the MT under a supplemental type certificate. When comparing the numbers for the old 76-inch metal Hartzell with the MT, normal takeoff distance for the 180-horsepower A–1B goes from 390 feet to 255 feet and cruise speed at 7,500 feet goes from 106 knots to 112 knots.

The MT prop has no blade life limit and it comes with stainless-steel water-erosion protection, something seaplane pilots will appreciate. It's amazing how water can chew up a metal prop. Although we didn't get to fly the airplane on floats, the factory says it can get off the water in only six seconds. That should impress the bass boaters with their giant Evinrude outboard motors.

Our test airplane is set up light for operating in the backcountry—no gyros to bust—but there is plenty of room in the panel for your heart's desires. With a Garmin GNS 530 IFR suite and other fancy gizmos, you can add $53,000 to the sticker price. The front and rear air-bag system, mounted in the seat-belt webbing, adds $4,180. At least one owner we know of has installed an autopilot in his older Husky. There is about a $30,000 premium for going with the 200-horsepower model over the 180-horsepower version when you add the MT prop to the less powerful version. Our airplane has a basic radio package, an instantaneous vertical speed indicator, an electric turn coordinator, and an aft stowage compartment. Upswept wingtips are a $1,550 option and can give you an extra 5 knots of speed.

Husky at home

After playing in the hills, we head back to Clemens' home in Benton, Kansas. It's here where he has carved out his own piece of paradise, a burgeoning airport community. In 2004 Dwayne and his wife, Julie, and two other couples bought the airport and immediately started improving it.

They tore down old hangars and built new ones, widened and repaved the runway, and built a new FBO building. With the permission of the Stearman family, they renamed the airport Benton Airpark Lloyd Stearman Field. You'll know when you've arrived; you can't miss the Stearmans. With a half-dozen or so based on the field, there's usually radial-engine music playing somewhere.

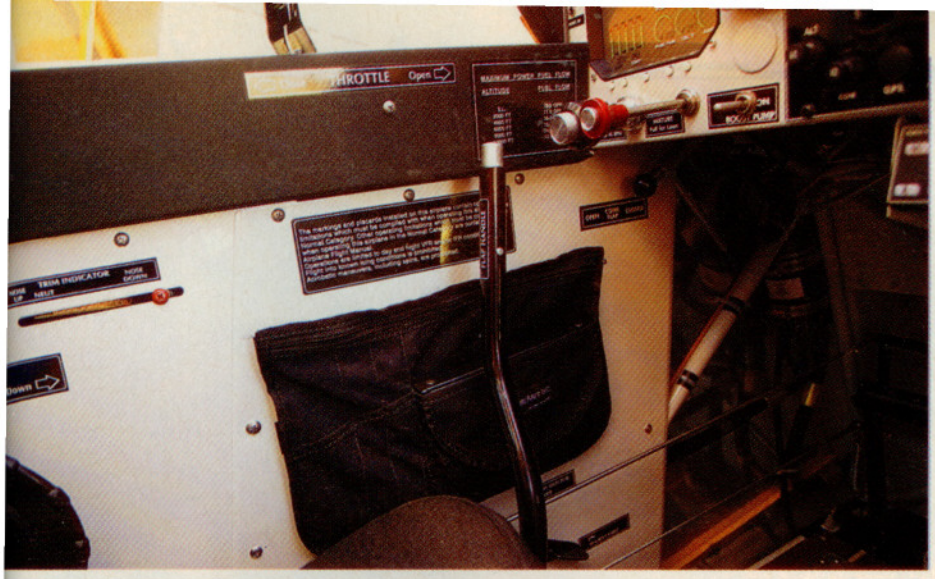
Clemens started out living in an apartment in his hangar. Then came the pool for the kids. Then came the house. Priorities, priorities. He and Julie are both high-time jet pilots. Clemens retired early from Raytheon in summer 2006 to concentrate on improving the airport, running the FBO, and building the Husky dealership. Thanks to the presence of tailwheel aircraft, there is a nice piece of grass next to the runway for wringing out the Husky.

The Husky was the brainchild of Frank Christensen as an improved Piper Super Cub. A dog's face is emblazoned on the decals. So what's in a name? The American Kennel Club characterizes the Siberian husky as "a medium-sized working dog, quick and light on his feet and free and graceful in action.... His intelligence, tractability, and eager disposition make him an agreeable companion and willing worker." Sounds about right.

Christensen also introduced the Christen Eagle kits and took over production of the Pitts Special line of aerobatic aircraft. Stu Horn bought the company in the mid-1990s after it had been renamed and since then has improved and refined the aircraft models. Aviat is known for its attention to detail and high quality.

But pilots who have flown Huskies often cite two problem areas: the flap handle and the spring-loaded trim system. Horn remedied the first nit with a new flap handle, which is available as a retrofit on older airplanes. The old handle was awkward because the pilot had to push it back behind his shoulder to reach the last setting.

The leverage point for the new handle is always out in front of the pilot. It's a cinch to use. The new flaps are the same semi-Fowler slotted flap the Husky has always used, but the extended flap area is increased along the span of the wing. Aviat also beefed up the flap hinge. This improvement allows for steeper descents. The 2005 Husky descends at 880 fpm as opposed to 550 fpm on the previous model. The flap change translates into shorter takeoff and landing distances as well as steeper climbs. Slow-speed handling in the A1–B 200 seems better than or at least equal to older models I've flown with vortex generators.



The Husky has plenty of room in the panel for IFR equipment and enough space in the cabin and storage areas for all your outdoor gear. The emblem on the tail perfectly captures the airplane's personality: It works and plays hard. In the air as well as on the ground, it's honest and won't turn on you.

The second nit is a matter of perspective or at least getting used to the airplane. An internal spring bungee trim system was installed in the airplane because of changes in FAA flutter-control requirements. The only time you notice it is when you pull the stick back for a three-point flare or during ground operations. Aviat says it may modify the trim system in the future.

I mostly do wheel landings because they look cool. But in the backcountry or on rough strips, it's a matter of what you want the airplane to do. With the tail in the air, wheel landings can keep obstacles from hitting the tailwheel. Plus, once the mains kiss the dirt, you can raise the flaps, and the tail immediately plops down. The wing acts as an air brake. Pull the stick back and gently engage the wheel brakes and you have a short-field wheel landing.

Of course not every wheel landing is perfect and you might have to save it with a three-point. Or you might be landing at night and depth perception is an issue. Or you might have a slight quartering tailwind and want to keep the tail from destabilizing and turning the airplane into a Brahma bull. For three-point landings, the trick is to roll the trim back to keep the added stick pressure from ruining your masterpiece of a landing. I was expecting some differences in landing characteristics with the new wing. It had been a while since I had flown a Husky, yet it all came back in a hurry. Perhaps the aerodynamic trickery helped out.

SPECSHEET

Aviat Husky A-1B 200

Base price: $191,460
Price as tested: $212,426

Specifications

Powerplant	Lycoming IO-360-A1D6, 200 hp
Recommended TBO	2,000 hr
Propeller	MT constant-speed
Length	22 ft 7 in
Height	7 ft 5 in
Wingspan	35 ft 6 in
Wing area	183 sq ft
Wing loading	10.9 lb/sq ft
Power loading	10 lb/hp
Seats	2, tandem
Cabin width	2 ft 3 in
Cabin height	4 ft
Empty weight	1,320 lb
Max gross weight	2,000 lb
Useful load	680 lb
Payload w/full fuel	380 lb
Max takeoff weight	2,000 lb
Max landing weight	2,000 lb
Fuel capacity, std	52 gal (50 gal usable)
Oil capacity	8 qt

Performance

Takeoff distance, ground roll	265 ft
Takeoff distance over 50-ft obstacle	780 ft
Rate of climb, sea level	1,700 fpm
Max level speed, sea level	126 kt
Cruise speed/endurance w/45-min rsv, std fuel (fuel consumption)	
@ 55% power, best economy, 7,500 ft	120 kt/5.9 hr (45 pph/7.5 gph)
Service ceiling	20,000 ft
Landing distance over 50-ft obstacle	1,025 ft
Landing distance, ground roll	398 ft

Limiting and Recommended Airspeeds

V_X (best angle of climb)	58 KIAS
V_Y (best rate of climb)	63 KIAS
V_A (design maneuvering)	98 KIAS
V_{FE} (max flap extended)	70 KIAS
V_{NO} (max structural cruising)	104 KIAS
V_{NE} (never exceed)	133 KIAS
V_{S1} (stall, clean)	50 KIAS
V_{SO} (stall, in landing configuration)	46 KIAS

For more information, contact Aviat Aircraft Inc., Box 1240, 672 South Washington Street, Afton, Wyoming 83110; telephone 307/885- 3151; fax 307/885-9674; www.aviataircraft.com.
All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere, sea level, gross weight conditions unless otherwise noted.

The Husky is a well-mannered airplane in all its forms. It's honest and tough and utilitarian and fun. And like the dog it emulates, it wants to run and run. AOPA

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Links to additional information about Aviat may be found on AOPA Pilot *Online (www.aopa.org/pilot/links.shtml).*