

CLIMBING BACK

STILL LIGHTNING FAST—WITH CREATURE COMFORTS AOPA

January 1, 2018 By Dave Hirschman

White sand beaches drift by underneath the first Mooney Ovation Ultra as it ascends in a cloudless Florida sky. Choppy air turns smooth around 3,000 feet as the sleek four-seater climbs at 120 knots. The moderately loaded airplane—with two people and 50 gallons of fuel—is rising at 1,400 feet per minute, and the view out the elongated windows is expansive.

But Mooney's fanatical fans care more about speed, efficiency, and handling qualities than creature comforts—and that's what I'm most interested in seeing from this airplane, Ovation Ultra serial number one.

We level off 6,500 feet over the Gulf of Mexico, leave the power wide open, and let the 310-horsepower Continental IO-550 work its magic as the digits in the airspeed box roll higher. I push forward on the electric trim switch with my left thumb, trying to give the airplane enough nose-down trim to counter the fast-increasing speed. The three-blade Hartzell propeller is turning 2,500 rpm, and after about two minutes of level flight, the Ovation settles at 189 KTAS (168 knots indicated) at a rich-of-peak mixture setting while burning 19 gallons of avgas an hour.

“It'll cruise like this all day long at this best-power setting,” said Lee Drumheller, the youthful, affable, and knowledgeable Southeast sales manager for Mooney dealer Premier Aircraft. “But watch what happens when we go lean of peak. That's where this airplane's efficiency really shines.”

Using the big-screen NXi graphical engine monitor on the multifunction display, Drumheller dials back the red, vernier-style mixture knob until the exhaust gas temperature on each of the six cylinders peaks, then recedes. At 50 degrees LOP, airspeed drops six knots to 183 KTAS while fuel consumption falls to 14.7 gph. That's a 22-percent drop in fuel consumption for a 4-percent speed penalty—an aerodynamic bargain.

MOONEY OVATION ULTRA



Mooney is betting its speed and range advantages—combined with a left-side door and new avionics—will attract enough hardcore pilots to allow the company to claw its way back into a competitive marketplace.



Photography by Chris Rose



• The pilot's-side door is the biggest and most obvious change in the Ovation Ultra, and there's more than meets the eye.



• ...LED wingtip lights are standard...



- ...and the rear baggage compartment holds up to 120 pounds.



- A two-screen Garmin NXi avionics suite with keypad data entry (next slide) fills the panel, and Mid-Continent's SAM (standby attitude module)—mounted vertically—plays a supporting role.



The keypad data entry.



Cabin doors don't need to be slammed shut, and they latch firmly using the locking mechanism.



The leather seats, like almost all Mooney components, are made at the factory in Kerrville, Texas.



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SPEC SHEET

Mooney Ovation Ultra

Price: \$699,000

Specifications

Powerplant | Continental IO-550-G, 310 hp

Time before overhaul | 2,200 hours

Propeller | Hartzell Scimitar 3-blade

Length | 26 ft 8 in

Height | 8 ft 4 in

Wingspan | 36 ft 6 in

Wing area | 175 sq ft

Wing loading | 19.3 lb/sq ft

Power loading | 11.2 lb/hp

Seats | 4

Cabin width | 43.5 in

Empty weight | 2,250 lb

Max gross weight | 3,380 lb

Useful load | 1,130 lb

Payload w/full fuel | 530 lb

Fuel capacity, std | 100 gal

Oil capacity | 12 qt

Baggage capacity | 120 lb

Performance

Takeoff distance, ground roll | 1,600 ft

Takeoff distance over 50-ft obstacle | 2,600 ft

Rate of climb, sea level | 1,300 fpm

Max level speed, sea level | 197 KTAS

Service ceiling | 20,000 ft

Landing distance over 50-ft obstacle | 2,500 ft

Landing distance, ground roll | 1,100 ft

Limiting and recommended airspeeds

V_X (best angle of climb) | 85 KIAS

V_Y (best rate of climb) | 105 KIAS

V_A (design maneuvering) | 127 KIAS

V_{FE} (max flap extended) | 110 KIAS

V_{LE} (landing gear extended) | 165 KIAS

V_{LO} (max landing gear operation) | Extend | 140 KIAS, Retract | 106 KIAS

V_{NO} (max structural cruising) | 174 KIAS

V_{NE} (never exceed) | 195 KIAS

V_{S1} (stall, clean) | 66 KIAS\

V_{SO} (stall, in landing configuration) | 59 KIAS

For more information contact Mooney International, 165 Al Mooney Road North, Kerrville, Texas 78028, 800-456-3033, sales@mooney.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.

Maneuvers such as steep turns, climbs, and descents—as well as an hour-long formation photo flight with multiple configuration changes—show off the tight, responsive, crisp control feel that Mooney pilots have always found so pleasing. Pushrod connections to the flight controls make the airplane a precision instrument. It's a scalpel, not a butter knife.

Older, short-body Mooneys are known for heavier ailerons than elevators, but the Ovation's control harmony is more closely balanced. “None of our competitors can match the speed and performance of a new Mooney,” Drumheller said. “Pilots who put a premium on real-world performance and handling qualities tend to be our best customers.”

A great opportunity

The Meijing Group of China has spent millions pumping new life into Mooney, and nearly 200 employees work at the Kerrville plant. Many are Mooney veterans who have lived through multiple boom and bust cycles since the company moved there in 1953—and they've seen dramatic changes in the general aviation market. So has Lance Phillips, Mooney's top U.S. executive and an experienced general aviation leader.

Phillips is guarded when he discusses Mooney initiatives such as the M10: a two-seat, composite training aircraft that the company announced to great fanfare and was developing in California for the international market. Mooney was testing a flying prototype, but the project has been shelved, and the company has consolidated in Kerrville while saying the M10 is still a “desire.”

Mooney is focusing on Acclaim and Ovation production, but those products face intense competition from a new generation of fixed-gear aircraft such as the parachute-equipped Cirrus SR22, which consistently outsells all other new piston singles. There are also used Mooneys on the market with similar performance to new M20s at lower prices. And a pilot who cares deeply about speed and can afford a new high-performance airplane also has options in used single-engine turboprops, such as the Piper Meridian or TBM 700, that fly higher and faster, although they also bring vastly higher operating costs.

Mooney's turbonormalized Acclaim still holds top-speed bragging rights over the fixed-gear SR22 and Cessna TTx, as well as its traditional rival, the Bonanza G36. Mooney is betting its speed and

range advantages—combined with a left-side door and new avionics—will attract enough hardcore pilots to allow the company to claw its way back into a highly competitive marketplace.

With a 197-knot maximum cruise speed and a range of 900 nautical miles at 8,000 feet, the Ovation Ultra has to break into a crowded part of the market that's occupied by overachievers. Its turbonormalized sibling, the Acclaim Ultra, is faster; Cirrus SR22s have parachutes and a broad maintenance and support network; Bonanza G36s have bigger cabins (and two more seats), and used turboprops that can outrun all of them in terms of pure speed. Also, given Mooney's stated aspirations in emerging aviation markets such as Asia, the M20's appeal to high-time pilots who value exquisite handling qualities seems odd. A boxy, forgiving, SUV with wings would seem like the appropriate tool for that market.

Mooney CEO Phillips said Mooney was delivering about 90 airplanes a year in 2006 before it began its dramatic pullback. He thinks the company can find about 50 new owners next year willing to pay a premium for Mooney performance, and the company can grow from that foundation.

“Our buyers are typically experienced pilots who value superior performance and handling qualities,” he said. “We have the ability to scale our production up or down to match demand.” (Mooney workers in Kerrville also build parts for other aerospace firms and supply parts for the existing Mooney fleet to supplement income from new aircraft sales.)

Phillips said Mooney has no plans to add an airframe parachute—the key feature that differentiates the top-selling Cirrus SR series. “We've got a great safety record already,” he said.

Phillips said Mooney is focused on building and refining M20s while competitors are juggling multiple projects. Cirrus is devoting a great deal of its resources to production of its newly certified SF50 Vision Jet, and Textron has a broad range of sometimes overlapping products three years after the company merged the Cessna, Beechcraft, and Hawker workforces. “We're laser-focused on the high-performance-single market,” Phillips said. “We've got a great opportunity there.”

Visual approach guidance

On the ramp, the Ovation Ultra has the sleek appeal of a thoroughbred. Walking around the airplane, you notice the things that give it a reputation for ruggedness. A one-piece wing spar stretches from

tip to tip, and the metal wing is held together with flush rivets on the front half and hefty round ones at the rear. Three attach points connect each aileron to the wing, and there are four on the elevator.

The trailing edge of the wing is close to the ground, but there are non-retracting metal steps on both sides for climbing on to the wing. Uprturned wing tips are designed to enhance stability, particularly at high altitudes. There are LED lights on the tips and incandescent landing and taxi lights embedded in the leading edge. The Ovation doesn't have cowl flaps, giving pilots one less thing to manage.

This airplane has multiple GPS and radio antennas protruding from the top of the fuselage, and some of them—such as the double-edged active traffic antenna—are likely to disappear as Automatic Dependent Surveillance-Broadcast becomes ubiquitous.

Opening the doors for the first time reveals them to be about four inches longer than the ones they replaced, and they open outward almost 90 degrees to provide easy access to the cockpit and rear seats.

Boarding through a left-side door will seem odd at first to veteran Mooney pilots, and there's a trick to it. Drumheller coached me through my first ingress by having me step in with my left foot first, which felt awkward but worked well. Closing the door felt funny, too, with my right hand pulling it closed, then locking it with my left.

The seats, made in Kerrville, are stitched leather and comfortable. They adjust vertically, fore and aft, recline, and there's an armrest between the front seats.

Engine start is normal, and the NXi avionics boot up faster than a legacy G1000 system. There's a single keypad for data entry (not touchscreens), and there are USB ports for electronic devices in the front and back.

Taxiing is standard, and the airplane sits at a 5-degree nose-up attitude on the ground, so the cowl blocks a sliver of the view straight ahead. There are no deice or anti-ice systems on this aircraft, although TKS is an option, as is air conditioning.

We taxi to Runway 4 at Tampa's Peter O. Knight Airport and launch with partial flaps into a 10-knot quartering headwind. Acceleration is brisk and a steady tug on the yoke at rotation speed lifts the nose skyward.

At cruise, Drumheller cranks up the XM music, picks out songs, and adjusts the volume from his iPad using the wireless FlightStream connection. That sort of thing used to require delving deep into the G1000 AUX menus, and he says handling it via the iPad takes less time and button pushing.

The NXi avionics system has rich, colorful displays, and my favorite feature is its visual approach guidance—which shows a highway-in-the-sky path to all runways in its vast database, even those without instrument approaches. It's a handy tool, particularly in long-body Mooneys that require precise airspeed control on final. The visual approach guidance simplifies the descent and configuration changes, especially at unfamiliar airports.

The Ovation has highly effective speed brakes, and Drumheller recommends using them during descent to prevent rapid engine cooling. A final approach speed of 75 KIAS allowed us to exit the runway in about 1,800 feet at the midfield turnoff.

Challenging and rewarding

The Ovation Ultra is a sleek, stylish, sturdy, confidence-inspiring airplane that both challenges and rewards pilots with exacting standards. They appreciate its precision, speed, and flight efficiency. Roll-on landings must be earned, because this airplane doesn't give them away. But that challenge is part of the airplane's appeal.

The Ovation Ultra takes the best of the Mooney tradition and adds some thoughtful improvements. It's likely to remain a highly niche product for pilot purists willing to pay a premium for speed, good looks, and crisp handling.

And that sounds like it's just fine with the folks at Mooney.

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