

Mooney 201

*Attention to detail
has made a good
design even better.*

BY EDWARD G. TRIPP

The Mooney 201 was introduced in mid-1976 with the usual attendant fanfare and at least one new twist: a song, "Mooney's Got the 201," recorded by Captain Mike and the Range Riders or the Kerrville Kickers (or something like that). Records were sent to dealers and journalists and even were offered for sale. The record did not do too well on the sales charts, and quite a few people were skeptical of the claimed performance increase for the 201.

The ho-hums changed to enthusiasm as people flew the 201, and sales success followed. The 201 was not a marketing hype. It was a very well executed improvement of a mature design. Because of it, a company that had been left for dead, that had been discounted by many even after its takeover by Republic Steel, prospered.

The success of the 201 funded the development of another model that almost eclipsed it, the 231 (see April 1979 *Pilot*, p. 38 and March 1980 *Pilot*, p. 40). The glamour single of 1978 seemed jilted.

Nevertheless, the 201 has been a steady seller, and No. 1,037 was being completed as this was written.

Model 201 sales are still good, particularly in this recession year. Mooney's plans for the aircraft are to continue development and refinement. The company's vice president of marketing, Donald K. Cox, said recently that the model has a 20-year life and

The New Old Faithful



that it will continue to be tuned as Mooney's and customer experience with it grows.

The 201 had a major shortcoming when it was introduced—a low gear-extension speed—and a major annoyance—a fuel selector located in front of the left seat, under the pilot's knees. These weaknesses were rectified for the 1978 model year. Gear-extension speed was raised to 135 knots and was retroactive to earlier 201s, and the fuel selector was moved to the center of the cockpit floor.

There have been a few other

with the advent of the new design.

Back up a minute. Radar? The 201 is a compact airplane. But 3846H has a very full complement of avionics, all King, yet the panel looks empty. That is with an audio panel, dual com, dual nav (number one is the KNS 80, four-waypoint integrated system), the new KR 87 automatic direction finder and transponder, plus a flight director system (EdoAire Mitchell's new three-axis Century 41-02 with slaved gyros). A lot of the credit goes to modern avionics design. King currently is leading the

both on the ground and in flight.

Fifteen degrees of flap are recommended for takeoff. Particularly at less than gross weight, the aircraft gets light on the gear quickly, and the recommended liftoff speed, 62 knots indicated airspeed, is a bit high with light loads; the aircraft will skitter along on the mains if the pilot tries to hold it on the runway.

Even loaded to gross weight on higher than standard-temperature days, the 201 flies solidly (this is not to say that ground run and distance to clear an obstacle do not increase substantially on a hot, high-density-altitude day). Control response is good; pressures are a bit heavy, particularly the ailerons.

Stalls in all configurations are rather mild, even when they are aggravated. There do not appear to be any vices, although pilots must be aware of the rapid build-up in speed in descent or a dive, particularly if one is being distracted.

Quite a few pilots had difficulty slowing to gear speed before it was increased, and they also had difficulty landing the airplane. Speed control during approach and landing needs to be quite precise and on target. Hot landings are rewarded with a lot of floating, bumping, sliding on the gear and wheelbarrowing on the nose gear. The 201 cannot be forced to land until it is ready to stop flying.

However, the airplane can be flown in mixed-traffic, high-density areas at higher-than-normal approach speeds and still land in reasonably short distances.

Loading flexibility is good. Payload in 3846H is 555 pounds with full fuel and CG (center of gravity) range in the close-coupled airplane is good. We tried loading exercises with heavy people in the rear seats with baggage and with heavies in the front without exceeding the loading envelope.

The airplane is efficient and performs well on 200 hp. During the evaluation we flew a variety of missions with light to gross loads and used mainly 60 to 65 percent power settings at altitudes from 4,000 to 13,000 feet. True airspeeds averaged nearly 155 knots at fuel burns of from 10 to 8.5 gph. Sixty percent power (2,400 rpm and 21 inches manifold pressure) at 10,000 feet, for instance, consumes 8.6 gph at the recom-



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tweaks here and there, too. The panel and center console have been redesigned twice, and the ventilation system has been changed to improve air flow and lower the cabin noise level.

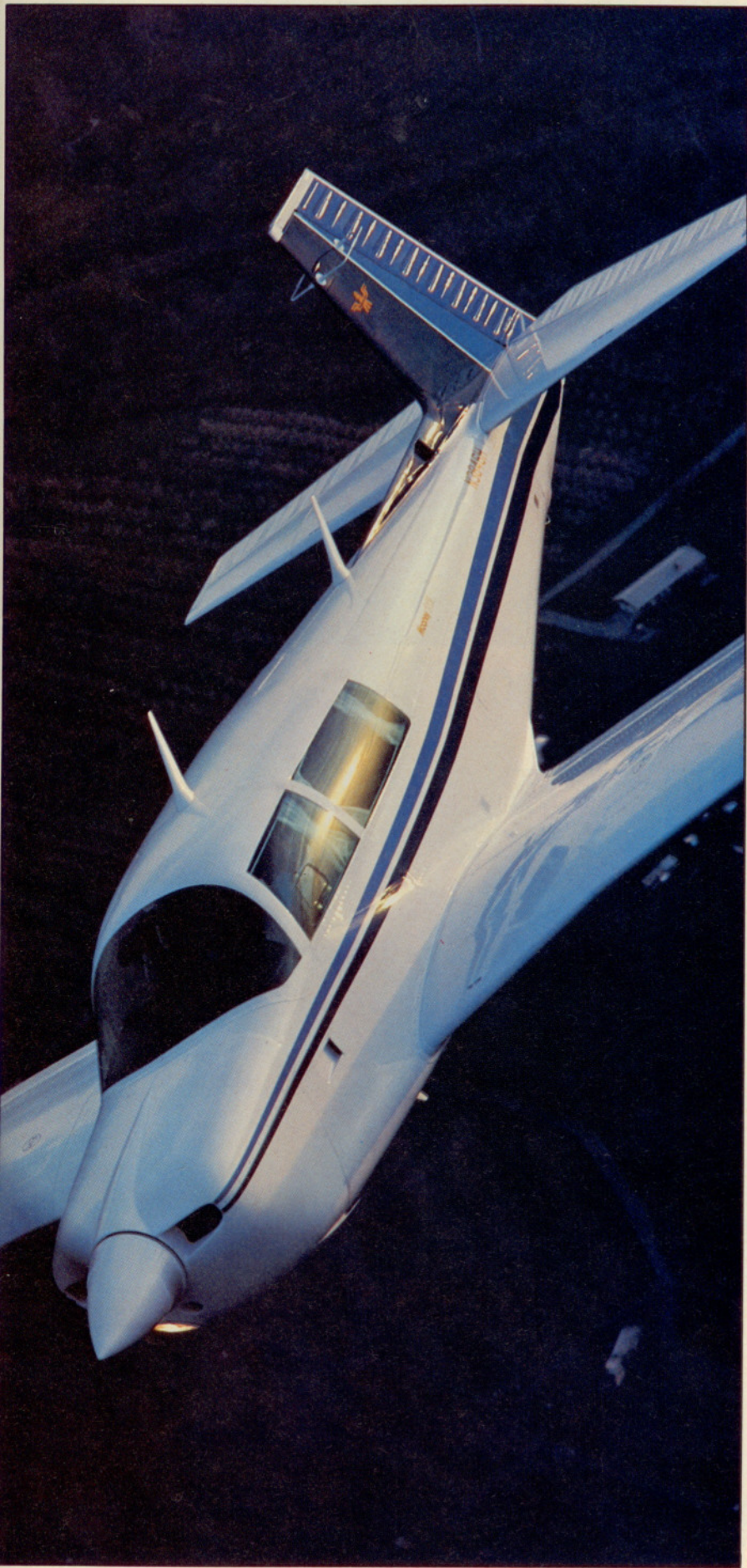
We have been flying the nine-hundred-sixty-first production 201, N3846H, representing the current state of development of the series. It also demonstrates the philosophy of an airplane as a platform to which is added a multitude of accessories to increase utility and ease of operation.

There have not been any major changes made to the airplane in the past couple of years, but quite a few detail refinements have been made. The 1980 model has the same glareshield and instrument panel as the 231, with a hump in the center to accommodate the optional RCA WeatherScout radar display. Earlier panels and glareshields rattled a lot, particularly at full throttle. However, this problem seems to have been cured

with both reduction in size and weight and additional features (such as the dual-function timer and dual-frequency selection on the ADF). But Mooney engineers have done a lot to make room on and behind the panel. So now only cost and need will determine or limit the add-on capability, not available space.

The 201 is a straightforward airplane. There are no peculiarities to preflight, start, runup or actual flight. For those not accustomed to Mooney aircraft, the low-to-the-floor seating position is different. The impressions—pilot position relative to the panel, eye position relative to the runway—take a bit of getting used to.

Ground handling is easy, but the turning radius is fairly large. Although the Mooney is compact, the high-aspect-ratio wing is long and care must be taken while taxiing in close quarters. Visibility over the panel and to the sides is quite good,



mended lean mixture setting. That is slightly more than 18 nm per gallon at gross weight.

There is one piece of equipment we would like to have in a 201 that is not standard or part of the basic option package: a fuel-flow gauge. But, fuel computers are available options.

The 201's operational flexibility as a basic airplane can be enhanced with the large variety of options that the company offers. It can be equipped quite simply for relatively economical VFR use or loaded, as 3846H is, for the pilot who needs to take off and go almost at any time.

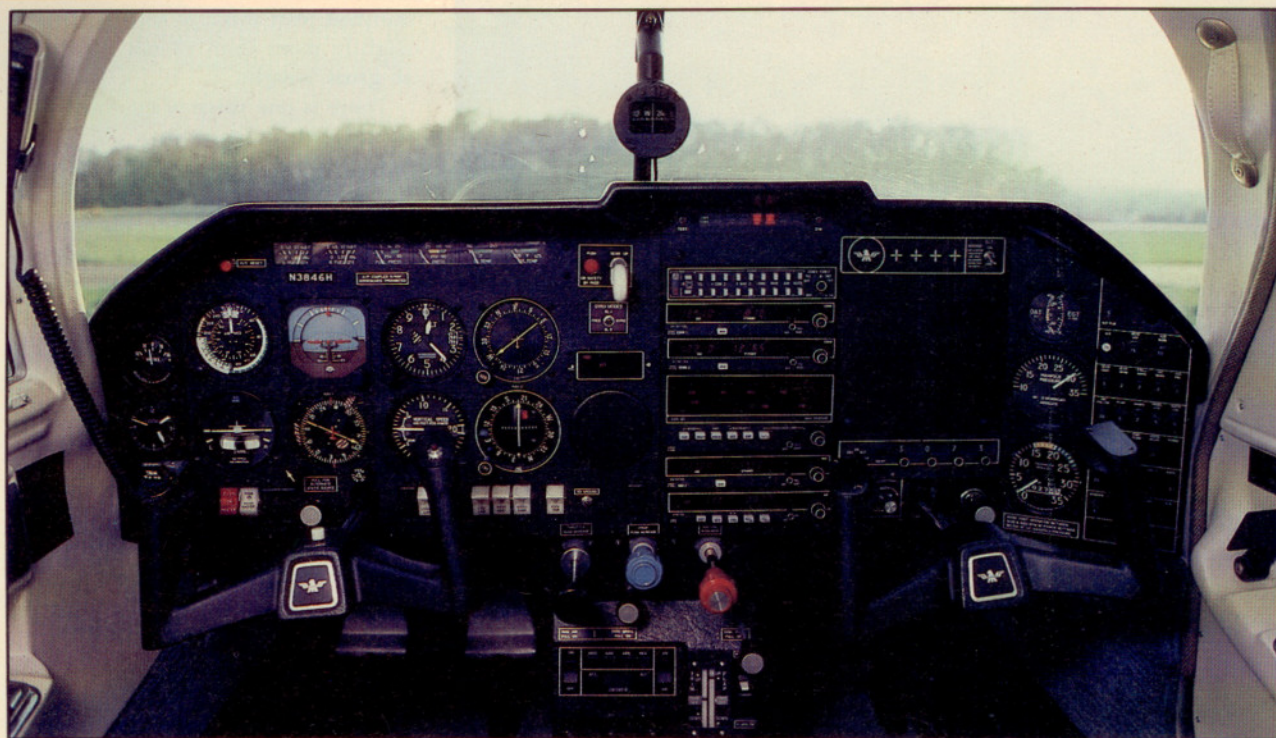
For the latter type of user, the electrically deiced propeller, which is available on the 231, would be a good addition that we understand may be made available to customers in the coming model year.

The detail improvements made to date on the 201 have added to its basic appeal and productivity. We were pleased to see that attention to detail has continued; there are no apparent shortcuts being taken by the company in order to squeeze the manufacturing costs lower.

Mooney quality control seems to be among the best in the industry. Overall and detail finish is good, and the high grade of materials used give the impression of durability.

The basic structure is solid and many of the subsystems, such as control and gear (which has absorbed a great deal of abuse from pilots over the years), are comparatively low maintenance items. Access to the engine compartment is relatively simple: the entire cowl can be removed in a few minutes. The only serviceability complaint we know of is that there are some bits and pieces under the glareshield that are hard to work on, although the company has relocated some items that had been maintenance problems in the field.

The overall service history of the 201 has been fairly good, and the only airworthiness directives have been applied to the powerplant and engine accessories. The two that we know of were minor but could result in engine failure or stoppage: one required checking the oil-pressure transducer mounting position, which could be broken and could cause loss of oil. The other, just issued in mid-June, requires the installation of a fil-



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ter between the electric and mechanical fuel pumps (or simply replacing the electric pump) to preclude fuel starvation due to contamination. The latter also applies to some M20E and M20F models.

As a matter of fact, most of the service complaints we have heard from 201 owners have been about avionics and electrical accessories.

The 201 is, all in all, good relative value; good, flexible performance; utility and pleasant to fly. It and its systems are not demanding, particularly after one is thoroughly checked-out and used to the low-to-the-ground seating position.

The toughest thing it has going against it is that it usually is compared by prospective buyers to the 231 instead of other competition. But it is much simpler to operate, less demanding and, therefore, poses fewer potential problems to most pilots.

It is not an economy airplane, even though it is comparatively economical. It is good, competitive value and very pleasant to fly. Despite the fact that the 231 has overshadowed the 201, the latter should remain a standard in the general aviation fleet for a long time. □

Mooney M20J 201			
Basic price \$52,000			
Price as tested \$85,770			
Specifications			
Engine	Lycoming IO-360-A3B6D 200 hp @ 2,700 rpm Recommended TBO 1,600 hr	Maximum level speed (sea level)	175 kt
Propeller	McCaughey constant speed, 74 in	Cruise speed (75% power, 8,000 ft)	169 kt
Wingspan	35 ft	Cruise speed (65% power, 8,000 ft)	161 kt
Length	24 ft 8 in	Cruise speed (55% power, 8,000 ft)	145 kt
Height	8 ft 4 in	Range @ 75% cruise (with 45-min reserve)	8,000 ft 686 nm
Wing area	167 sq ft	Range @ 65% cruise (with 45-min reserve)	8,000 ft 749 nm
Wing loading	16.4 lb/sq ft	Range @ 55% cruise (with 45-min reserve)	8,000 ft 825 nm
Power loading	13.7 lb/hp	Service ceiling	18,800 ft
Passengers and crew	4	Landing distance (ground roll)	880 ft
Cabin length	9 ft 6 in	Landing over 50 ft	1,987 ft
Cabin width	43.5 in	Limiting and Recommended Airspeeds (Indicated airspeed, not calibrated)	
Cabin height	44.5 in	Va (Design maneuvering speed)	120 kt
Empty weight	1,640 lb	Vfe (Maximum flap-extended speed)	114 kt
Equipped empty weight (as tested)	1,801 lb	Vle (Maximum landing-gear-extended speed)	133 kt
Useful load (basic aircraft)	1,100 lb	Vlo ext (Maximum landing-gear-extension speed)	135 kt
Useful load (as tested)	939 lb	Vlo ret (Maximum landing-gear-retraction speed)	109 kt
Payload with full fuel (basic aircraft)	716 lb	Vne (Never-exceed speed)	198 kt
Payload with full fuel (as tested)	555 lb	Vno (Maximum structural cruise speed)	176 kt
Gross weight	2,740 lb	Vs (Stall speed clean)	63 kt
Fuel capacity (standard)	66.5 gal (64 usable)	Vs (Stall speed in landing configuration)	55 kt
Oil capacity	8 qt	Vx (Best angle-of-climb speed)	66 kt (est.)
Baggage capacity	120 lb (17 cu ft)	Vy (Best rate-of-climb speed)	71 kt (est.)
+hat shelf	10 lb (2.6 cu ft)	<i>Based on manufacturer's figures</i>	
Performance			
Takeoff distance (ground roll)	890 ft		
Takeoff over 50 ft	1,517 ft		
Rate of climb (gross weight)	1,030 fpm		