

Piper PA-46 Malibu Mirage Model Guide

The Piper PA-46 Malibu Mirage is a pressurized, turbocharged single-engine piston aircraft listed with 4 to 6 seats and first built in 1989. The source documents are mostly service letters, STC paperwork and accident reports, so this guide works as a pre-buy checklist: what it carries, how it flies, and which inspections and records to check.

KEY TAKEAWAYS

- Pressurized single with twin turbochargers; a 5.5 psi differential holds an 8,000 ft cabin at maximum operating altitude (1995 AOPA review).
- Fuel capacity is 120 US gal; one accident report gives about 18 gph at 20,000 ft cruise. Maximum lateral fuel imbalance is 10 gal.
- Pre-buy: confirm Service Letter 578B fuel line/clamp checks and Service Bulletin 1103B nose gear actuator foot inspections are in the logs.
- The 1991 FAA review found the PA-46 series compliant and made 60 recommendations; training and systems familiarity matter.

WHAT IT IS AND HOW IT FLIES

Leather seats, a relatively wide cabin and inflatable lumbar support make it comfortable. The wing span is 43 feet and control forces are light, but the airplane tends to yaw in turbulence, where the yaw damper helps. A 1995 review listed a new price of \$682,965. Accident reports on the Mirage cite a Lycoming TIO-540-AE2A engine.

MAINTENANCE AND RECORDS TO CHECK

Service Letter 578B calls for the Lycoming Service Bulletin 342F fuel line and clamp inspection every 100 hours and at annual, covering Mirage serials 4622001 through 4622200 and 4636001 and up. Piper SB 1103B calls for liquid penetrant inspection of the nose gear actuator feet every 100 hours or annually, unless a redesigned engine mount is fitted.

PROPELLER AND UPGRADES

A Hartzell STC allows a three-blade propeller on serials 4622001 to 4622200 and 4636001 to 4636131 with electric prop de-ice. It takes about 40 hours of labor if STC SA01340CH is not already installed, and it raises prop heat current draw by 8.0 amps. Ask which STCs are fitted and check the paperwork.

SPECIFICATIONS

Wing Span Ft	43
Fuel Capacity Gal	120
Demonstrated Crosswind Kts	17

PERFORMANCE

Cruise Fuel Flow Gph	18
Cruise Altitude Ft	20000

WEIGHT & BALANCE

Max Lateral Fuel Imbalance Gal	10
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SAFETY NOTES

- After the 1989-1991 in-flight breakups, the FAA issued an AD prohibiting flight in or near thunderstorms, icing, and moderate to severe turbulence.
- A 2000 UK engine failure followed a flight with 22 gal in the left tank and 40 gal in the right; the flight manual limit is a 10 gal imbalance. Verify fuel on board.
- A 2004 nose gear collapse came in a 20-30 kt surface wind; the demonstrated crosswind limit is 17 kt.