

Piper PA-47 PiperJet Model Guide

The Piper PA-47 PiperJet is a single-engine light jet with a tail-mounted Williams FJ44-3AP engine and a 44-foot wingspan. It was billed as the first pure jet in Piper's 71-year history. The library lists 4 to 7 seats. The available documents give only late-2008 projections from the prototype program, not measurements from delivered aircraft.

KEY TAKEAWAYS

- Projected: 360-knot max cruise, 1,300 nm max range, certification to 35,000 ft, 7,250 lb max takeoff weight. Verify against any actual aircraft.
- Cabin: four club seats plus aft baggage. A seventh seat or lavatory was optional. Piper guaranteed an 800 lb full-fuel payload for a standard airplane.
- Quoted price was \$2.199 million, with 200 orders. Piper expected certification and first deliveries in late 2011 or early 2012.

PROJECTED PERFORMANCE

Piper projected 1,000 nm at 360 KTAS burning 77 gph with IFR reserves, or 1,300 nm at 320 KTAS on 64 gph. The proof-of-concept airplane climbed at over 3,400 fpm initially and was still climbing at 1,000 fpm at FL350. Stall speed target is 61 knots. Landing distance at typical weights is about 2,500 feet.

CABIN AND SYSTEMS

The cabin stays at sea level pressure through 18,000 feet and settles at 8,000 feet at 35,000 feet (7.45-psi differential). Known-icing approval is planned, using pneumatic boots on the wings and tail and bleed air for the engine inlet. The panel has Garmin avionics, a sidestick and a single-lever power control. An autothrottle and antiskid brakes were optional.

ENGINE AND BUILD

The Williams FJ44-3AP can make 3,000 pounds of thrust but was to be de-rated to 2,490 lbst for extra climb at high altitude. The tail mount reduces foreign-object-damage concerns and puts the engine far aft of the passengers. Piper planned to build the airplane at Vero Beach, Florida, with a training program through an outside partner.

SPECIFICATIONS

Wingspan Ft	44
Engine Thrust Lbs	2490

PERFORMANCE

Max Cruise Speed Kts	360
Max Range Nm	1300
Service Ceiling Ft	35000
Initial Climb Rate Fpm	3400
Fuel Burn Gph	77
Stall Speed Kts	61
Landing Distance Ft	2500

V-SPEEDS

Rotation Speed Kts	80
Best Angle Climb Speed Kts	160
Best Rate Climb Speed Kts	180
Normal Climb Speed Kts	200
Flaps 20 Extend Speed Kts	160
Flaps 36 Extend Speed Kts	130

WEIGHT & BALANCE

Max Takeoff Weight Lbs	7250
Empty Weight Lbs	4100
Full Fuel Payload Lbs	800

SAFETY NOTES

- Approach speeds: gear and initial flaps at 200 KIAS, flaps 20 at 160 KIAS, flaps 36 at 130 KIAS. Vref is 80 to 85 KIAS, with touchdown near 70 knots.
- All figures are projections. At the unveiling, Piper had not finished its first 50 hours of flight testing, so confirm real-world numbers.
- The prototype had straight main gear and direct-link nosegear steering. Production airplanes were to have trailing-link main gear, so check which configuration you are looking at.