NOVAIRE



AIRCRAFT OPERATING PROCEDURES

Praetor 600

Limitations, performance and the full flight checklist suite

EMBRAER EMB-550

HONEYWELL HTF7500E

PRIVATE AVIATION · VIRTUAL

EDITION 1.0 · NOVEMBER 2026

THE AIRCRAFT

The Praetor 600.

A super-midsize business jet with fly-by-wire controls and Collins Pro Line Fusion avionics. This manual sets out the limits, performance data and checklists for flying it the Novaire way. Every figure carries a source, because no flight manual was available for this edition.



ENGINES	THRUST EACH	MAX TAKE-OFF WEIGHT
HTF7500E x2	7,528 lbf	19,440 kg
MAX LANDING WEIGHT	**MAX ALTITUDE**	**MAX OPERATING MACH**
17,000 kg	45,000 ft	M 0.83
RANGE	**CREW**	**PASSENGERS**
4,018 nm	Two pilots	8 std, 12 max

WHAT THIS MANUAL COVERS

LIMITATIONS
Weights in kilograms, speeds, altitude, wind, fuel and autopilot limits.

PERFORMANCE AND HANDLING
Headline performance, landing-distance arithmetic, a temperature and altitude table and fly-by-wire notes.

PROCEDURES BY PHASE
Safe-operation practice from preflight to shutdown.

CHECKLISTS
Twelve checklists, preflight to shutdown. Flying solo? Read the item, then perform it.

Read this first. This edition is built from public sources, not the Praetor 600 Airplane Flight Manual (AFM) or FCOM. Weights and engine data come from the EASA type certificate data sheet and Embraer. Most operating limits come from a user-written study deck that does not name its model, so treat them as unconfirmed. The checklists are generic business-jet practice. Check everything against the current AFM and FCOM before flying.

LIMITATIONS

Know the limits.

Source codes: **EASA** type certificate data sheet. **EMB** Embraer Praetor 600 brochure. **JET** Jetcraft overview. **FSB** FAA Flight Standardization Board report. **DECK** study deck on Brainscape, unconfirmed for the 600. Full list on the last page.

ITEM	LIMIT OR REQUIREMENT	SOURCE
Weights	Max ramp 19,500 kg. MTOW 19,440 kg. MLW 17,000 kg. MZFW 13,000 kg. Lower weights belong to the Legacy 500 and Praetor 500.	EASA, JET
Engines	Two Honeywell HTF7500E (AS907-3-1E), 7,528 lbf each, flat rated to ISA+18 °C. Take-off thrust is limited to 5 minutes, or 10 minutes with one engine inoperative.	EMB, EASA, DECK
Altitude	Maximum operating altitude 45,000 ft. Take-off and landing from -1,000 ft to 9,600 ft. The deck also lists 13,800 ft with HALTO approval.	EMB, DECK
Speeds	MMO M 0.83. VMO 300 KIAS to 10,000 ft and 320 KIAS up to 29,475 ft. Gear 250 KIAS. Tire speed 182 KIAS. Turbulence penetration 230 KIAS to 10,000 ft, then 265 KIAS / M 0.77.	EMB, DECK
Wind	Tailwind 10 kt for take-off and landing. Take-off crosswind 35 kt, using the crosswind take-off procedure above 25 kt. Landing crosswind 25 kt. Contaminated-runway limits are lower; the sources disagree, so use the AFM.	DECK
Runway and temperature	Paved runway slope -2% to +2%. Minimum take-off and landing temperature -40 °C. Maximum fuel tank temperature for take-off 52 °C.	DECK
Fuel	About 7,300 kg capacity (sources give 7,251 to 7,375 kg). Crossfeed OFF for take-off, go-around and landing. Maximum tank imbalance 231 kg.	BJT, DECK
Autopilot	Minimum engagement height 400 ft AGL. Minimum use height 80 ft AGL with a vertical path, 180 ft AGL without.	DECK
Reversers and taxi	Stow thrust reversers by 40 KIAS on landing. No reverse thrust to back up. Single-engine taxi is not authorised.	DECK
Approach category	Category C for the Praetor 600. The Praetor 500 is category B.	FSB
Pressurisation	Cabin altitude 5,800 ft at 45,000 ft. Maximum differential 9.73 psid. Differential for take-off and landing 0.2 psid or less.	EMB, DECK
Flight controls	Normal mode limits 33° bank and +30° / -15° pitch. Direct mode should be used only when a checklist requires it.	BJT, FSB

PERFORMANCE AND HANDLING

Runway reality check.

The headline numbers are for a sea-level, standard-day airport. Altitude, heat, wetness and weight all lengthen them, and no public source gives the charts for that.

TAKE-OFF, MTOW, SL, ISA	LANDING, UNFACTORED	SHORTEST RUNWAY
4,717 ft	2,165 ft	3,000 ft

RANGE, 4 PAX, NBAA IFR	HIGH-SPEED CRUISE	LONG-RANGE CRUISE
4,018 nm	466 ktas	433 kt

Landing distance arithmetic

CASE	DISTANCE	NOTE
Unfactored (Embraer)	2,165 ft	Sea level, ISA, 4 passengers, NBAA IFR reserves
Autothrottle landing (+10%)	2,382 ft	Deck: multiply the flaps unfactored distance by 1.1 and add 5 KIAS to VREF
With a 60% factor	3,608 ft	Only if your operating rules apply a 60% landing factor
Both together	3,969 ft	Illustrative worst case of the two above

The last three rows are simple arithmetic on the Embraer figure. They are planning aids, not AFM data.

Fly-by-wire handling notes

- **Take-off:** take-off law engages at 65 kt and gives pitch-rate control. A small aft sidestick input rotates the aircraft. Normal law returns 3 to 5 seconds after lift-off.
- **Landing:** pitch-rate law is the default. After the mains touch, hold the sidestick neutral and the nose lowers smoothly. Use the TCS button to reset trim.
- **Autobrake:** the HIGH setting engages one second after main-wheel touchdown, at low pressure until the nosewheel is down. Pedal braking cancels it.
- **Taxi:** steer-by-wire nosewheel, up to 62° deflection below 10 kt, reducing as speed rises.
- **Envelope protection:** 33° bank, +30° / -15° pitch, VMO and 1.13 VS in normal mode. An engine failure is compensated automatically, with a little rudder to finish.
- **Pre-start trim:** the Praetor 600 has its own pitch trim setting table before start, and a pitch trim command on the ground in normal mode.

Source note. Handling notes come from a 2018 pilot report on a pre-certification aircraft, plus the FAA FSB report. The Praetor 600 AFM performance charts are needed for any real dispatch decision on weight, altitude, temperature or runway condition.

TEMPERATURE AND ALTITUDE

Hot and high.

No public source gives Praetor 600 take-off or landing corrections for temperature or altitude. This page shows standard-atmosphere arithmetic only: how far a day departs from ISA, and what that does to density altitude. It does not give a weight or field-length correction. Those come from the AFM charts.

Temperature to altitude correction

TEMPERATURE VS ISA	ALTITUDE CORRECTION	OAT AT SEA LEVEL	OAT AT 4,000 FT	OAT AT 8,000 FT	MEANING
ISA-30 °C	-3,560 ft	-15 °C	-23 °C	-31 °C	Cold, denser air
ISA-20 °C	-2,380 ft	-5 °C	-13 °C	-21 °C	Cold, denser air
ISA-10 °C	-1,190 ft	5 °C	-3 °C	-11 °C	Cold, denser air
ISA	0 ft	15 °C	7 °C	-1 °C	Standard day
ISA+10 °C	+1,190 ft	25 °C	17 °C	9 °C	Hot, thinner air
ISA+18 °C	+2,140 ft	33 °C	25 °C	17 °C	Engine flat-rating limit
ISA+20 °C	+2,380 ft	35 °C	27 °C	19 °C	Hot, thinner air
ISA+30 °C	+3,560 ft	45 °C	37 °C	29 °C	Hot, thinner air

Add the correction to pressure altitude to get density altitude. A hot day performs as if the airport were higher, a cold day as if it were lower. The correction is 118.8 ft per °C of deviation, and ISA is 15 °C at sea level, falling 1.98 °C per 1,000 ft. In cold air the altimeter reads high, so apply the published cold-temperature correction on approach. The take-off and landing altitude limit in the sources is 9,600 ft.

Worked example

STEP	RESULT
Airport	Pressure altitude 5,000 ft, outside air temperature 30 °C
ISA at that altitude	5.1 °C, so the day is ISA+25 °C
Density altitude	7,960 ft, about 2,960 ft above the field
Engine thrust	The engines are flat rated to ISA+18, which is 23.1 °C here. At 30 °C thrust is no longer held, so take-off performance must come from the AFM

Temperature limits found in the sources

LIMIT	VALUE	SOURCE
Engine flat rating	ISA+18 °C	EMB, BJT
Minimum take-off and landing temperature	-40 °C	DECK
Maximum fuel tank temperature for take-off	52 °C	DECK
Maximum ambient take-off temperature	Not found in any public source	Use the AFM

Before a hot or high departure. Use the AFM take-off chart for the actual temperature, pressure altitude, wind and slope. If the AFM chart is not in hand, do not plan the headline 4,717 ft figure. It is a sea-level ISA number.

PROCEDURES

Phase by phase.

1 Preflight

- Check the weights: MTOW 19,440 kg, MLW 17,000 kg and MZFW 13,000 kg. Work take-off and landing from the AFM charts, not the headline figures
- Confirm tailwind is 10 kt or less and crosswind is inside limits. Check tank temperature, balance within 231 kg and crossfeed state
- Prefer a premium FBO at both ends, or the next best stand. Never the terminal or a jetway

2 Taxi out & departure

CHECKLISTS: BEFORE START · AFTER START · BEFORE TAKE-OFF

- Taxi below 30 kt: 20 kt on straights and 10 kt or less in turns. No single-engine taxi
- Above 25 kt crosswind use the crosswind take-off procedure, and never exceed 35 kt
- Take-off thrust is limited to 5 minutes. Stay at or below 250 kt under 10,000 ft and keep bank to 25° or less. Engage the autopilot above 400 ft AGL

3 Cruise

CHECKLISTS: AFTER TAKE-OFF / CLIMB · CRUISE

- Fly a steady autopilot cruise within M 0.83 and switch the seatbelt sign on early for turbulence
- In turbulence fly 230 KIAS to 10,000 ft, then 265 KIAS or M 0.77. Monitor fuel balance and cabin altitude, and plan the descent early

4 Arrival

CHECKLISTS: DESCENT · APPROACH · BEFORE LANDING

- Brief a category C approach. Set the altimeter and check minimums. Be stabilised by 1,000 ft AGL, or go around
- Final flap is FULL. With autothrottle add 5 KIAS to VREF and 10% to the landing distance. Crossfeed off before landing
- Autopilot may be used down to 80 ft AGL with a vertical path and 180 ft AGL without. Aim for a touchdown of 100 to 250 fpm

5 Rollout & taxi in

CHECKLIST: AFTER LANDING / TAXI

- Hold the sidestick neutral after touchdown. Autobrake as required, then pedals. Stow reversers by 40 KIAS
- Retract the flaps, switch off the landing lights and strobes, and call Ground. Taxi in below 30 kt

6 Parking & shutdown

CHECKLISTS: PARKING · SHUTDOWN

- Brakes on, thrust levers idle, seatbelt lights off and no smoking on
- Park at the FBO ramp or next best stand, then complete Shutdown with engines stopped. Close out the booking in Vaeroly



PRAETOR 600

Preflight to Cruise

Highlighted lines carry a Praetor 600 limit from the sources in this manual. All other lines are generic business-jet practice, since no public Praetor 600 checklist was found. Check every line against the FCOM and the electronic checklist.

PREFLIGHT

WEATHER / NOTAMS	**CHECKED**
WEIGHT (MTOW 19,440 KG)	**WITHIN LIMITS**
TAKE-OFF DATA (V-SPEEDS)	**COMPUTED**
RUNWAY (AFM CHART)	**VERIFIED**
TAILWIND / CROSSWIND	**10 KT / 35 KT MAX**
FUEL IMBALANCE	**231 KG MAX**
FLIGHT PLAN	**LOADED**
DOORS	**CLOSED**

>> PREFLIGHT CHECKLIST COMPLETED <<

BEFORE START

SEATBELT SIGN	**ON**
BEACON	**ON**
ALTIMETERS	**SET**
PITCH TRIM (START TABLE)	**SET**
FMS / FLIGHT PLAN	**PROGRAMMED**
PARKING BRAKE	**SET**
CABIN	**SECURE**

>> BEFORE START CHECKLIST COMPLETED <<

AFTER START

ENGINES	**RUNNING**
ICE PROTECTION	**AS REQUIRED**
FLAPS	**SET FOR T/O**
FLIGHT CONTROLS	**CHECKED**
SINGLE-ENGINE TAXI	**NOT AUTHORISED**
TAXI SPEED	**30 KT MAX**

>> AFTER START CHECKLIST COMPLETED <<

BEFORE TAKE-OFF

FLAPS	**CONFIRMED**
SPOILERS	**RETRACTED**
CROSSFEED	**OFF**
CROSSWIND OVER 25 KT	**X-WIND PROCEDURE**
STROBES / LIGHTS	**ON**
BRIEFING	**DONE**

>> BEFORE TAKE-OFF CHECKLIST COMPLETED <<

AFTER TAKE-OFF / CLIMB

GEAR	**UP**
FLAPS	**RETRACTED**
SPEED BELOW 10,000 FT	**250 KT MAX**
BANK ANGLE	**25° OR LESS**
AUTOPILOT	**ABOVE 400 FT AGL**
LANDING LIGHTS	**OFF**
ALTIMETERS	**STANDARD**

>> AFTER TAKE-OFF / CLIMB CHECKLIST COMPLETED <<

CRUISE

AUTOPILOT	**ENGAGED**
SPEED	**M 0.83 MAX**
SEATBELT SIGN	**AS REQUIRED**
CABIN ALTITUDE	**CHECKED**
FUEL BALANCE	**MONITORED**
DESCENT	**PLANNED**

>> CRUISE CHECKLIST COMPLETED <<

PRAETOR 600

Descent to Shutdown

DESCENT

WEATHER / ATIS	**OBTAINED**
APPROACH BRIEFING	**COMPLETED**
LANDING DISTANCE (AFM)	**CHECKED**
ALTIMETERS	**SET**
SEATBELT SIGN	**ON**
LANDING LIGHTS BELOW 10,000 FT	**ON**
AUTOTHROTTLE LANDING	**VREF +5 KIAS**

>> DESCENT CHECKLIST COMPLETED <<

APPROACH

APPROACH CATEGORY	**C**
AUTOPILOT USE	**MIN 80 / 180 FT AGL**
ALTIMETER	**SET**
MINIMUMS	**CHECK**
CABIN	**READY**
STABILISED BY 1,000 FT AGL	**OR GO AROUND**

>> APPROACH CHECKLIST COMPLETED <<

BEFORE LANDING

GEAR	**DOWN**
FLAPS	**FULL**
CROSSFEED	**OFF**
AUTOBRAKE	**SET**
LANDING LIGHTS	**ON**
CABIN	**READY**

>> BEFORE LANDING CHECKLIST COMPLETED <<

ROLLOUT & TIRE SPEEDS

40 kt	182 kt
REVERSERS STOWED BY	TIRE LIMIT SPEED

AFTER LANDING / TAXI

REVERSERS	**STOWED BY 40 KIAS**
SPOILERS	**RETRACTED**
FLAPS	**RETRACTED**
LANDING LIGHTS	**OFF**
STROBES	**OFF**
AUTOBRAKE	**OFF**
FREQUENCY	**GROUND**
TAXI SPEED	**30 KT MAX**
SINGLE-ENGINE TAXI	**NOT AUTHORISED**

>> AFTER LANDING / TAXI CHECKLIST COMPLETED <<

PARKING

PARKING BRAKE	**SET**
THRUST LEVERS	**IDLE**
SEATBELT SIGN	**OFF**
NO SMOKING	**ON**

>> PARKING CHECKLIST COMPLETED <<

SHUTDOWN

PARKING BRAKE	**ON**
THRUST LEVERS	**IDLE**
FLAPS	**RETRACTED**
SPOILERS	**RETRACTED**
NAV LIGHTS	**OFF**
STROBES	**OFF**
LANDING LIGHTS	**OFF**
ICE PROTECTION	**OFF**
APU / EXT POWER	**AS REQUIRED**
FLT PLAN	**CLEAR**
BEACON	**OFF**
ENGINES	**STOPPED**

>> SHUTDOWN CHECKLIST COMPLETED <<

At a glance.

WEIGHTS

Ramp 19,500 kg. MTOW 19,440 kg. MLW 17,000 kg. MZFW 13,000 kg.

ENVELOPE

M 0.83 and 45,000 ft maximum. Gear 250 KIAS. Tire speed 182 KIAS.

WINDS

Tailwind 10 kt. Take-off crosswind 35 kt, procedure above 25 kt. Landing crosswind 25 kt.

TAKE-OFF

Thrust limit 5 min, or 10 min one engine out. Autopilot above 400 ft AGL.

APPROACH

Category C. Stabilised by 1,000 ft AGL. Final flap FULL. Crossfeed off.

ROLLOUT

Sidestick neutral. Reversers stowed by 40 KIAS. Taxi in at 30 kt or less.

PARKING

FBO preferred, then next best stand. Never a terminal or jetway.

SHUTDOWN

Brakes on, thrust levers idle, systems clear, engines stopped.

SOURCES AND NOTES

EASA: Type Certificate Data Sheet EASA.IM.A.526, Issue 12 (EMB-550 and EMB-545). Weights, engines and take-off thrust time. It defers speeds and altitude limits to the AFM.

EMB: Embraer Praetor 600 brochure (embraer.com). Take-off and landing distance, range, MMO, ceiling, cabin altitude, thrust.

JET: Jetcraft Praetor 600 overview (2025). Weights and cruise speeds. Agrees with EASA.

FSB: FAA Flight Standardization Board Report, EMB-550, Rev 5 draft. Approach category, final flap, flight control modes.

BJT: Business Jet Traveler pilot report, Nov 2018, on a pre-certification aircraft. Fly-by-wire behaviour and fuel capacity.

DECK: Brainscape study decks "Praetor Limitations" and "Praetor 500". User-written, with no model named and some 500 and 600 values mixed. Used where a value is not model-specific or matches the 600. Several values (speeds, temperature, fuel, reverser and taxi rules) rest on a single deck.

Fuel capacity differs by source: 7,251 kg (BJT), 7,319 kg (Aviation Week), 7,375 kg (deck), converted from pounds. The 231 kg imbalance limit is the deck’s 510 lb. No public Praetor 600 checklist was found. Virtual operation only.