VIRTUAL-FLY / FAA AATD

# SOLO PRO SEMINOLE

Piper PA-44-180 Advanced Aviation Training Device · Garmin G1000 NXi

**Master multi-engine flying at a fraction of the cost.**

WHERE MULTI-ENGINE TRAINING GETS EXPENSIVE — AND DANGEROUS

# The hardest phase to train in the actual aircraft.

**0**

### TWIN HOURLY OPERATING COST

Two engines' fuel, reserve, and maintenance the school absorbs on every syllabus hour flown.

**0**

### ENGINES TO OVERHAUL & RESERVE

A twin carries two engines to TBO — double the reserve burden and double the downtime exposure of a single.

**0**

### ENGINE-OUT & VMC DRILLS YOU CAN SAFELY TRAIN IN THE AIRCRAFT

Vmc, engine failure after takeoff, and feathering near the ground carry real risk to airframe and crew.

*An AATD trains the most dangerous and most expensive multi-engine work on the ground — without replacing the aircraft.*

THE SOLUTION

# Train the emergencies you can't fly for real.

An FAA-certified Piper Seminole AATD — full PA-44-180 cockpit, twin throttle quadrant, Garmin G1000 NXi, and a high-fidelity flight model your students train in every day.

## 01

### Log approved hours toward the rating

Instrument, commercial, and multi-engine procedural work count under Part 61/141 per your LOA — the twin stays on the line earning.

## 02

### Drill engine-out & Vmc to proficiency

The maneuvers most likely to bite in the real aircraft — trained at zero risk to airframe, engines, or student.

## 03

### Run multi-engine IFR every day

Weather-proof and on-demand — higher throughput toward the multi and instrument tickets, shorter time-to-rating.

WHAT A SEMINOLE AATD DELIVERS

# Six ways it pays for your school.

### Loggable Part 61 / 141 credit

Approved hours toward IR, CPL, CFI, and ATP under your FAA LOA — billable sim time, not lost time.

### Engine-out to proficiency

Vmc, engine failure after takeoff, feathering, and single-engine approaches — drilled with zero real-world risk.

### Keep the twin earning

Move procedural and IFR hours off two engines — protect TBO reserve and keep the aircraft on revenue.

### More multi-engine throughput

Run lessons in parallel with the aircraft, weather-proof and on-demand — shorter time-to-rating.

### Standardized, repeatable checks

Every student faces identical engine-failure scenarios on stage and 141 phase checks — consistent grading.

### Lower insurance & liability

Practice the syllabus's highest-risk maneuvers on the ground — fewer real-aircraft events, a stronger safety case.

LOGGABLE CREDIT BY CERTIFICATE

# Approved sim hours toward every rating.

Both | Part 61 | Part 141

| CERTIFICATE / TASK | PART 61 | PART 141 |
|---|---|---|
| Private Pilot (PPL) | 2.5 | 5.25 |
| Instrument Rating (IR) | 20 | 14 |
| Combined PPL & IR | 20 | 17.5 |
| Commercial Pilot (CPL) | 50 | 24 |
| Flight Instructor (CFI) | — | 1.25 |
| Instrument Instructor (CFI-I) | — | 0.75 |
| Airline Transport (ATP) | 25 | 6.25 |
| Instrument Currency | ✓ | ✓ |
| Instrument Proficiency Check | ✓ | ✓ |

*Maximum AATD hours creditable per certificate — actual credit per your school's FAA Letter of Authorization (LOA). ✓ = device approved for the task. Device AATD approval: Q3 2026.*

SECTION 02 — FIDELITY

# The multi-engine work that can't be flown for real.

Asymmetric thrust, Vmc, and feathering behavior — the high-consequence handling your students can't safely rehearse in the aircraft, modeled with engineering-grade fidelity.

ENGINE-OUT & ASYMMETRIC FLIGHT

# Engine failure, modeled to the procedure.

Twin Lycoming behavior, asymmetric thrust, and propeller feathering — modeled so engine-out flows transfer straight to the aircraft.

### Vmc demonstration · controllability at the critical speed

Drilled to recognition and recovery without descending toward the ground — the maneuver most lethal to rehearse for real.

### Engine failure after takeoff · identify · verify · feather

Pitch for blue line ($V_{YSE}$), secure the dead engine, establish single-engine climb — the full flow under load.

### Counter-rotating props · no critical engine

True to the PA-44 — Vmc behaves symmetrically whichever engine fails, so the model teaches the real aircraft, not a generic twin.

### Single-engine approach & go-around · drift-down · diversion

Asymmetric thrust on final, single-engine performance limits, and the divert decision — to proficiency.

MULTI-ENGINE SYSTEMS & ABNORMALS

# The twin's systems, trained safely.

### Fuel & crossfeed

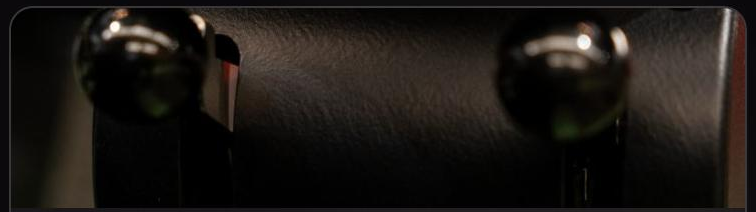
Feed the live engine from the opposite tank — balance, endurance, and the L/R/X-FEED selections on the real selectors.

### Propeller & governor

RPM excursions, governor failures, and feathering drilled on the real PROP / FEATHER levers.

### Electrical & alternator

Load-shed and reconfigure with the Garmin G5 standby as independent backup through the failure.



### Cowl flaps & cooling

CHT management and cowl-flap technique for climb, cruise, and single-engine cooling.

### Cabin heat & defrost

Decorative panel — present for full cockpit fidelity; cabin heat is not a simulated system.

### Gear & configuration

Gear handle and switch banks at your fingertips — gear, flap, and trim flows with emergency extension.

COMPLETE FAILURE CATALOGUE

# 0 failures across every Seminole system.

Highlight custom modules

| | | | | |
|---|---|---|---|---|
| 6<br>Engine — Left | 6<br>Engine — Right | CUSTOM<br>8<br>Asymmetric / OEI | 6<br>Propeller / Governor | 8<br>Fuel System |
| 10<br>Electrical | 15<br>G1000 NXi | 4<br>G5 Standby | 12<br>Primary Instruments | 12<br>Nav Instruments |
| 16<br>Sensors + Environment | 12<br>Flight Controls | 6<br>Landing Gear | 6<br>Pitot / Static | 12<br>Engine Instruments |

*Orange-bordered categories are Virtual-Fly custom modules — engineered behavior, not failure flags.*

INSTRUCTOR STATION

# One screen. Every failure. Every scenario.

FS-FlightControl IOS — point-and-click failures, scripted scenarios, and one-click repositioning to any fix or runway.

### › Seminole-specific failures

Single-click engine failure, crossfeed faults, electrical and instrument malfunctions — repeatable behavior for grading.

### › Triggers, timers & markers

Arm a failure on time, altitude, or airspeed; drop markers for instant debrief; auto-record tracks and snapshots.

### › One-click reposition & reset

Place the aircraft on short final or any waypoint, freeze to brief, then reset in seconds to repeat the maneuver.

Full PA-44-180 cockpit · Garmin G1000 NXi

CONDITIONAL TRIGGERS · BUILD ONCE, REPLAY EVERY CHECK

# The same engine failure, every pilot.

## TRIGGER CONDITIONS · COMBINE ANY

**Immediate**
Activate the moment armed.

**Time delay (min)**
Configurable pending delay — no warning to the crew.

**Altitude range (AGL/MSL)**
Fire inside a defined altitude band — e.g. just after rotation.

**Airspeed range (IAS)**
Arm around Vmc or blue line to test recognition.

**On configuration change**
Trigger on gear or flap selection.

## EXAMPLE ENGINE-OUT PRESET

### EFATO → SE ILS

ENGINE FAILURE AFTER TAKEOFF · SINGLE-ENGINE APPROACH

▶ Play scenario

**T+0**
Rotate, positive rate, gear up

**AT 400 ft AGL**
Right engine fails · identify · verify · feather

**BLUE LINE**
Establish $V_{YSE}$ single-engine climb · secure engine

**APPROACH**
Single-engine ILS to minimums · go-around decision

*Save the profile once. Run it identically for every student — stage checks, 141 phase checks, checkrides.*

CUTTING-EDGE AVIONICS

# Garmin G1000 NXi. Complete situational awareness.

- **Full G1000 NXi suite**
  PFD, MFD, SVT synthetic vision, HSI and inset maps, vertical situation display, and electronic checklists.
- **RNAV-capable autopilot**
  LNAV and VNAV flight planning with VNAV descents and all modes implemented — train real IFR procedures.
- **Garmin G5 standby**
  Independent EFIS/HSI backup — dependable redundancy through electrical malfunctions and abnormal drills.

Live G1000 NXi · PFD / MFD in the SOLO PRO SEMINOLE

PROFESSIONAL FLIGHT CONTROLS

# Every lever matches the real aircraft.

YOKO NEO · FORCE FEEDBACK OPTIONAL

## PA-44 yoke

Metal build, 144 mm long-throw travel, contactless hall sensing. Electric Trim, AP/TRIM DISC and PTT where the Seminole pilot expects them — with optional force feedback for true control loading.

TQ6+

## Twin throttle quadrant

Metal dual throttle, prop, and mixture levers with FEATHER detents — mirrors real multi-engine power flows lever for lever.

PEDESTAL & CONSOLE

## Central console

Functional pitch trim, flap lever, gear, and the L/R/X-FEED fuel selectors — positioned and weighted like the real PA-44 for true muscle memory.

WHAT A FLIGHT SCHOOL SAVES IN THREE YEARS

# Run the numbers for your twin.

Twin training hours / year 500

Syllabus hours moved to AATD 55%

Direct operating cost / hr $300

Engine TBO reserve / hr (×2) $70

Weather hours retained / year 70

Tuition retained / hr $260

Time horizon 3 yr

Reset to baseline

| LINE ITEM | AIRCRAFT-ONLY | WITH AATD | SAVINGS |
|---|---|---|---|
| **Direct operating cost**<br>Fuel + per-hour cost on hours moved to AATD | $248K | $0 | $248K |
| **Engine TBO reserve protected**<br>Reserve on two engines preserved by moving hours off | $58K | $0 | $58K |
| **Weather-day tuition retained**<br>Cancelled lessons now run on the AATD | $0 | $55K | $55K |
| 3-YEAR TOTAL | | | $360K |

*Adjust the sliders to your own operation. Excludes insurance, instructor efficiency, and AATD capex. Virtual-Fly schools typically recover the investment in under 1.5 years.*

TRUSTED BY LEADING FLIGHT TRAINING ORGANIZATIONS

**Infinity Flight Group**

**American Airlines Cadet Academy**

> *We've moved heavily toward scenario-based training, and the Virtual-Fly Seminole lets us recreate specific real-world conditions on demand — same weather, same setup, every student. The X-Plane visuals are stunning and the fidelity is shockingly accurate — it transfers straight to the aircraft and lets us train procedures our previous simulator simply couldn't.*

**Infinity Flight Group**
Chief Flight Instructor

> *Honestly, we were blown away. The fidelity and the open control we have over the device are a real step up from our previous platform — when a procedure needs fine-tuning, it gets tuned, so we're never boxed in. The realism is striking, and our cadets feel it from the first session.*

**American Airlines Cadet Academy**
Director of Training

TAILORED TO YOUR FLIGHT SCHOOL

# A device. A partnership. Your syllabus.

### Built for daily use

Heavy-duty metal hardware and a high-fidelity PA-44-180 model — reliable enough for a school's busiest day.

### Your SOPs and checklists

Full Seminole cockpit and G1000 NXi train your flows from day one. Students never unlearn-relearn.

### Plug & Fly integration

Dual-PC X-Plane 12 setup, touchscreen instructor station, and all required FAA documentation included.

### 24 / 7 support · 3-yr warranty

Remote diagnostics and a US presence (Tampa, FL · Chicago · Los Angeles). Continuous software updates.

**Let us build the cost model for your flight school.**

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