TBM 900 SERIES RECURRENT SYLLABUS

Executive Flight Training — “Fly Safe. Train Smart.”

Introduction

The TBM 900 Series Recurrent Training Program is designed for pilots who have successfully completed an approved TBM Initial Course. This program reinforces essential knowledge and flight skills, emphasizing systems review, abnormal and emergency procedures, automation proficiency, and pilot judgment in single-pilot TBM operations. Training and evaluation are conducted under 14 CFR Part 61 and meet FAA and insurance renewal standards.

Eligibility Requirements

FAA Requirements:
Hold a valid U.S. Private, Commercial, or ATP Certificate with Instrument Airplane Rating.
Hold a valid Third Class (or higher) Medical Certificate.

Executive Flight Training Requirements:
Completion of an approved TBM Initial Training Course.
Familiarity with G1000, G3000, or equivalent avionics installation.

Course Objective

To train and certify a TBM 900 Series pilot to maintain proficiency and safe operation of the TBM series aircraft, demonstrating competence in systems management, normal and abnormal operations, and single-pilot resource management.

Summary of Training

Ground and Flight/Simulator Training consist of a structured review of essential aeronautical knowledge and flight skills required for safe TBM operations. Actual training time is determined by the instructor, based on each pilot’s experience and proficiency.

GROUND INSTRUCTION

Lesson 1 – Regulations and Operational Requirements — Hours: As Required for Proficiency

Review of applicable FAA regulations under Parts 61 and 91, recurrent training, IPC, and flight review requirements. Review of TBM MEL, RVSM, oxygen requirements, and FAA Orders applicable to TBM operations.

Lesson 2 – Aircraft General and Publications — Hours: As Required for Proficiency

Review of AFM, POH, and normal operating checklists. Review of configuration differences, limitations, and performance data.

Lesson 3 – Fuel System Review — Hours: As Required for Proficiency

Fuel tank arrangement, pumps, selectors, drains, crossfeed, and pressure indications. Review of fuel control logic and abnormal procedures.

Lesson 4 – Powerplant and Propeller System — Hours: As Required for Proficiency

PT6A engine review: power sections, propeller controls, start sequence, ITT/Ng management, auto-ignition, and feathering. Auto Throttle (if installed): system architecture, engagement/disengagement logic, limitations, and operational considerations during takeoff, climb, and approach. Engine fire detection system operation and associated annunciations. Abnormal and emergency procedures for engine malfunctions and fire warnings.

Lesson 5 – Electrical System — Hours: As Required for Proficiency

DC generation, bus logic, essential/emergency circuits, alternators, and battery-only operation. Review of load-shedding and common malfunctions.

Lesson 6 – Hydraulic and Landing Gear Systems — Hours: As Required for Proficiency

System pressure sources, retraction and extension cycles, alternate gear extension, brake system operation, and annunciator functions.

Lesson 7 – Environmental and Pressurization Systems — Hours: As Required for Proficiency

Air conditioning and pneumatic systems, pressurization control, cabin altitude logic, and emergency depressurization procedures.

Lesson 8 – Ice and Rain Protection — Hours: As Required for Proficiency

Ice detection, deice boots, prop and windshield systems, pitot-static and engine inlet anti-ice, and icing limits and procedures.

Lesson 9 – Avionics and Autoflight Systems — Hours: As Required for Proficiency

Flight Director, Autopilot, FMS, TCAS, TAWS, radar, and stormscope. Review of automation modes, FMS data entry, and abnormal operations.

Lesson 10 – Weight, Balance, and Performance — Hours: As Required for Proficiency

Review of loading procedures, takeoff and landing performance computations, climb and glide data, and CG/fuel burn effects.

Lesson 11 – Human Factors and SRM — Hours: As Required for Proficiency

ADM, CRM, fatigue, distraction management, and TBM incident case studies focusing on decision-making and situational awareness.

Lesson 12 – Adverse Weather Operations — Hours: As Required for Proficiency

Operations in precipitation, turbulence, low visibility, icing, and convective conditions. Thunderstorm avoidance and cold-weather procedures.

Lesson 13 – Review and Evaluation — Hours: As Required for Proficiency

Comprehensive system review, verbal questioning of emergency procedures, and performance critique.

FLIGHT / SIMULATOR INSTRUCTION

Lesson 1 – Normal Procedures and Proficiency Review — Hours: As Required for Proficiency

Preflight, start, taxi, and normal checklists. Takeoffs, climbs, level-offs, descents, and automation use.

Lesson 2 – Abnormal and Emergency Procedures — Hours: As Required for Proficiency

Engine failure at takeoff and climb, engine fire, smoke/fumes, electrical failure, pressurization malfunction, gear/flap malfunctions.

Lesson 3 – Instrument Procedures and Automation — Hours: As Required for Proficiency

Departure and arrival procedures, coupled and manual ILS and RNAV (GPS) LPV approaches, missed approach, and circling maneuvers.

Lesson 4 – Single-Pilot Proficiency and Scenario Training — Hours: As Required for Proficiency

Line-oriented scenario emphasizing ADM, workload management, diversions, and fuel strategy.

Lesson 5 – Evaluation and Debrief — Hours: As Required for Proficiency

Oral systems review, demonstration of normal and emergency maneuvers, and instructor critique.

Completion Standards

Demonstrates proficiency to Commercial Pilot standards, correctly performs all normal, abnormal, and emergency procedures, maintains situational awareness, and applies sound judgment consistent with Executive Flight Training recurrent standards.

Testing and Documentation

Training conducted under 14 CFR Part 61. Certificate of Completion issued for insurance and FAA recordkeeping. Optional IPC endorsement available.

Recommended Study Materials

TBM AFM / POH, Manufacturer’s Systems Guides, SafePilot Publishing Workbooks, Current Approach Charts, and TBM Checklists.

Endorsement

This syllabus is approved for use by Executive Flight Training, providing TBM pilots with proficiency-based recurrent instruction emphasizing safety, judgment, and operational excellence.

“Fly Safe. Train Smart.”