



Multi-Engine Class Rating Seminar

Pacific Flying Club



Multi-Engine Class Rating Seminar

Seminar Description:

This seminar provides the student with the required knowledge to safely operate a multi engine aeroplane. Included are lessons on multi engine aerodynamics, systems, standard operating procedures, emergency operating procedures, performance and weight and balance

Seminar Learning Outcomes/Competencies:

Upon completion of this seminar, the student will be able to:

- Apply the knowledge to fly a basic multi-engine aircraft.
- Identify and describe multi-engine systems and parts.
- Describe standard operating procedures for multi-engine aircraft.
- Describe emergency operating procedures for multiple-engine aircraft.
- Demonstrate the required knowledge to pass the Transport Canada Multi-Engine Class Rating Flight Test.



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Seminar Outline:

Multi-Engine Aerodynamics

- Terminology
- Multi-engine aerodynamics
 - Induced airflow
 - Turning tendency
 - Torque
- One engine inoperative aerodynamics
 - Propeller feathering
 - Sideslip
 - Zero sideslip
 - Minimum Control Speed (VMC)
 - Determination of VMC
 - Critical engine
 - Factors affecting VMC
 - Climb Performance (airspeed, drag, power and weight)

Multi-Engine Systems

- Propeller system
- Landing gear system
- Fuel system
- Turbocharging systems
- Heating /ventilating system
- Supplemental oxygen System
- Pressurization system
- Ice protection system
- Auto pilot/ flight director system

Multi-Engine SOPs

- Multi-engine SOPs
 - Takeoff and climb
 - Cruise
 - Descent
 - Approach and landing
 - Overshoot
- One engine inoperative SOPs
 - Recognizing an engine failure
 - Memory items
 - Actions
 - Enroute
 - Landing
 - Overshoot

Multi-Engine Performance/Weight and Balance

- Performance
 - Terminology
 - Performance charts (departure, enroute, landing)
- Weight and Balance
 - Terminology
 - Methods
 - Effects of centre of gravity positions
 - Correcting centre of gravity out of limits



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Seminar Schedule:

Date	Time	Subject	Instructor	Required Reading
Friday	0800-1100	Multi engine Aerodynamics	TBA	-Jeppesen Multi engine pp 3-2 to 3-33 - PFC MIFR SOPs, Section 9, Multi engine theory
Saturday	0800-1100 (lunch break) 1300-1600	Multi engine Systems	TBA	-Jeppesen Multi engine pp 2-2 to 2-49 -Seneca AOM, Systems
Sunday	0800-1100	Multi engine SOPs/Multi-engine Performance and Weight and Balance	TBA	-Jeppesen Multi engine pp 2-50 to 2-89, pp 4-2 to 4- 38 and pp 5-2 to 5-40 -Seneca AOM, Performance Charts

Assigned reading:

- Jeppesen Guided-Flight Discovery Multi-Engine Book
- Aircraft Operating Manual for Seneca Aircraft
- PFC MIFR Standard Operating Procedures
- TP 219- Flight Test Guide- Multi-Engine Class Rating-Aeroplane

Price: \$175 (handouts included)