

Multi Engine Class Rating Endorsement

MULTI ENGINE CLASS RATING

A multi engine endorsement also referred to as a multi engine class rating is designed to train pilots in the operation of an aircraft with more than one engine.

The most common aircraft for getting a twin engine endorsement are the following:

Beechcraft BE76 Duchess

Piper Comanche PA30

Piper Seminole PA- 44

WHAT IS REQUIRED FOR A MULTI ENGINE RATING?

- As a minimum, you must have completed your private pilot licence (PPL) before you can complete the multi engine class rating aeroplane endorsement.
- Some pilots choose to do a constant speed unit CSU endorsement on a single engine aircraft like the Cessna 182T before transitioning to a twin where they complete the retractable gear endorsement. Or have a Manual Propeller Pitch Control (Piston Engine) Endorsement where no training will be required.

PRE-STUDY MATERIAL – Multi-Engine Command Rating (MECR)

- Understanding the normal, abnormal and emergency procedures applicable to your aircraft is fundamental in completing your multi rating.
- Along with the systems and performance characteristics stipulated in the Aircraft Flight Manual & Pilots Operating Handbook (POH).
- Complete the CASA multi-engine aircraft endorsement questionnaire is the first step before the practical flying component for the particular training aircraft.

- Manual Propeller Pitch Control (Piston Engine) Endorsement

MULTI ENGINE CLASS RATING COURSE

Day 1 ME(A) 1 and ME(A) 2

GENERAL HANDLING AND CIRCUITS –

- Your flight instructor will have an in depth discussion about your CASA engineering paper questionnaire and the twin engine syllabus.
- Concluding the theory session you will go out to the aircraft where you will be shown the ins and outs of your training aircraft.
- An overview of what you can expect.
- Aeroplane familiarisation, preparation for flight and general handling sequences and circuits.
- Retractable undercarriage system
- Stalling
- Basic Instrument flight
- Considerations and procedures for take off, circuit, approach and landing (including missed landing, missed approach)
- Aeroplane navigation and operating systems, general handling, normal and abnormal operations
- General aeroplane data (category, limitations, fuel and oil)
- Controls and systems
- Operating airspeeds and limitations
- Pre-flight actions
- Use of checklists
- Taxiing
- Take-off and after take-off checks
- Synchronisation
- Straight and level – normal cruise, range and endurance
- Climbing and descending
- Turning (level, climbing and descending)
- Slow flight
- Inflight emergencies (other than engine fire/failure)

ASYMMETRIC HANDLING AND INTRO TO ASYMMETRIC CIRCUITS

Day 2 ME(A) 3 and ME(A)4

- The theory looks at the severity of Yaw, effectiveness of rudder and the single engine performance of your aircraft.
- In flight we will look at the failure of one of the engines and look at how to identify and rectify.
- Asymmetric Flight, Critical and Safety Speeds
- Review asymmetric flight- the basic problem
 - recognition
 - control
 - performance
- Factors affecting control, V_{MCA}
- Factors affecting performance, V_{YSE}
- Engine failure checklist procedures
- Diversion, radio communications, passenger management considerations
- Method to be used for simulation of engine failure
- Pre take-off safety briefing
- Review of critical airspeeds
- Review engine failure recognition, control and performance
- Factors affecting single engine climb performance
- Take-off and initial climb considerations
- Asymmetric missed approach
- Asymmetric committal height considerations
- Factors affecting decision speed/height

ASYMMETRIC CIRCUITS

Day 3 ME(A) 5

Engine failure's at all sequences of flight.

- Engine failure after take-off
- Engine failure in the circuit
- Asymmetric circuit and approach considerations
- Engine failure during approach
- Asymmetric go around/missed approach

CONSOLIDATION

Day 4 ME(A) 6 and ME(A)CR

Consolidating the previous training in preparation for your flight test. This is what you can expect to review.

- Contents of the flight manual and pilot operating handbook for the aircraft being flown
- Flight test knowledge requirements:
 - the privileges and limitations of the class rating
 - flight review requirements
 - navigation and operating systems
 - normal, abnormal and emergency flight procedures
 - operating limitations
 - weight and balance limitations
 - aircraft performance data, including take-off and landing performance data
 - flight planning
- Assessment of flight test knowledge requirements for issue of the multi engine class rating.

Multi engine aeroplane class rating flight test Day 5

- Flight Test and issue of the MULTI ENGINE CLASS RATING.

Why Royal Newcastle Aero Club

- RNAC has been training Pilots since 1928
- Maitland Aerodrome has been the home for RNAC since 1960 over 60 years.
- Royal Newcastle Aero Club owns and operates Maitland Aerodrome.
- Our proximity to Newcastle Airport a Military /Class C airspace and close proximity to Tamworth and Bankstown Aerodrome Class D gives greater exposure to a real life commercial aviation environment when exposed to a military, RPT and corporate aviation.
- We offer a variety of aircraft to conduct multi engine training in.
- You can choose from a basic trainer for the initial rating or for those more experienced a twin engine high performance endorsement.

MULTI ENGINE FLIGHT INSTRUCTORS

- With instructor's focused solely on multi engine and Instrument Flight Rules (IFR), take advantage of their experience and knowledge.
- Our multi engine instructors have worked within many facets of commercial aviation use their knowledge to assist you in your future endeavours within aviation.

MULTI ENGINE RATING COURSE DURATION

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- 8 Hours Dual
- For students considering a FULL TIME course we recommend a 1-2 week time frame.
- For students considering a PART TIME course we recommend a 3 – 4 week time frame.
- From experience most students have conducted this training within 2 weeks and full time.
- Course duration can be extended due to learning ability, weather and frequency of lessons.

LESSON #	LESSON DESCRIPTION	DUAL	PROG DUAL	IF	PROG IF	TOTAL PROG FLIGHT TIME
ME(A)1	General handling	1.0	1.0			1.0
ME(A)2	General handling & circuits	1.0	2.0	0.1	0.1	2.0
ME(A)3	Introduction to asymmetric flight	1.0	3.0			3.0
ME(A)4	Critical & safety speeds, Introduction to asymmetric circuits	1.0	4.0			4.0
ME(A)5	Asymmetric circuits	1.2	5.2			5.2
ME(A)CR Aeronautical knowledge examination						
ME(A)6	Consolidation	1.3	6.5	0.1	0.2	6.5
Multi engine aeroplane class rating flight test		1.5	8.0	0.1	0.3	8.0

Multi Engine Endorsement Cost

Multi Engine Class Rating Endorsement	
Theory – Pre-flight and briefings	Beechcraft BE76
Dual Instruction	9 Hrs
Flight Test Fee	TBA
Aircraft for Flight Test @1.5 Hrs	Included
Total Cost	\$6500

Other costs to 3rd party suppliers such as, flight examiners will also be required, and your instructor will outline these for you. Price includes GST.

If you have any questions, please do not hesitate to call the office on 0249328888 or email on office@rnac.com.au or lookup our web page at www.rnac.com.au