APPENDIX 3. AIRCRAFT RATINGS AND ENDORSEMENTS

SECTION 3.1 CLASS RATINGS

Unit 3.1.1 MECR: multi-engine aeroplane class rating – all aircraft categories

1. Reserved

2. General operational knowledge

2.1 Principles of asymmetric flight

2.1.1 Describe basic principles of asymmetric flight, changes in thrust and drag vectors and the effect on balanced flight.

2.1.2 State airspeed limitations necessary to ensure control of the aircraft.

2.1.3 Explain the effects on aircraft performance associated with engine failure.

2.1.4 Describe the effects of bank or sideslip on:

(a) vertical stabiliser (fin) and stall speed;

(b) rudder effectiveness;

(c) control load and aircraft trim.

2.1.5 Describe the factors effecting minimum control speeds or other speed specified to achieve optimum performance following the failure of an engine.

2.1.6 Describe the concept of ‘commitment height’ during approach and landing where applicable and the factors determining that height.

2.1.7 Knowledge of the aircraft certification performance requirements.

3. Aircraft systems

3.1 Aeroplane and engine systems

3.1.1 Describe the normal and non-normal operation of the following systems if installed in the aircraft:

(a) fuel;

(b) electrical;

(c) flight control (primary and secondary);

(d) hydraulic;

(e) flight instruments;

(f) avionics;

(g) braking;

(h) de-icing;

(i) oxygen;

(j) cabin airconditioning and pressurisation;

(k) other systems installed in the aircraft.

3.1.2 Describe the operation and limitations of following engine systems where installed:

(a) fuel;

(b) oil;

(c) starter (including air start for turbo-jets);

(d) ignition;

(e) propeller;

(f) mixture – piston engine only;

(g) turbochargers.

3.1.3 Knowledge of the aeroplane limitations specified in the aircraft flight manual.