

**APPENDIX R62.08  
RECREATIONAL PILOT LICENCE  
GYROPLANES  
THEORETICAL KNOWLEDGE COURSE**

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**1. Aim of training course**

The aim of the course is to train a candidate to the level of proficiency required for the issue of a type rating for gyroplanes, and to provide the training necessary to act as pilot-in-command of any gyroplane for which he or she holds a valid type rating, engaged in non-revenue flights under visual flight rules.

**2. Theoretical knowledge course**

2.1 The theoretical knowledge course must cover the subjects as detailed in the syllabus:

- (a) Principles of Flight
- (b) Aviation Legislation
- (c) Navigation
- (d) Meteorology
- (e) Aircraft Technical General
- (f) Human factors
- (g) Briefing and care of passengers

2.2 Restricted Radio Telephony Operator's Certificate as prescribed in AIC 30.9

**3. Theoretical knowledge course syllabus**

- (a) *Principles of Flight*
  - Physics and Mechanics
  - The forces on an aircraft in flight.
  - Aerofoils.
  - Propeller theory
  - Flying controls.
  - Rotor system lifting and operation principles.
  - Rotor stall principles.
  - Characteristics at the stall including factors affecting blade stall conditions and gyroplane behavior at blade stall.
  - Avoidance of blade stall
  - Equilibrium.

Mass and Balance.  
Stability.  
Climbing and descending.  
Turning.  
Manoeuvres, including high- and low speed flight.  
Aircraft Performance.

(b) *Aviation Legislation*

All applicable Acts, Regulations, Standards and other statutory promulgated documents with particular emphasis on operation of non-type certificated aircraft, related to-

The hierarchy, interaction applicability and administrative functions of the controlling bodies promulgating these statutory rules and regulations.

The processes for proposed amendment to these.

Classification of aircraft.

Aircraft documentation.

Documents and records to be maintained and produced on request.

Offences in relating to documents and records.

Airworthiness.

Flight crew licensing.

Recreational pilot license - Privileges and limitations.

Logbooks.

Classification of Airspace.

General flight rules.

Incident/accident reporting.

Prohibition of international operations

(c) *Navigation*

Form of the earth.

Magnetic variation.

Compass deviation.

Principles of navigation.

Maps and charts.

Map reference information.

Map reading.

Methods of map reading.

Flight preparation.

Flight planning.

Weather forecasts and reports.

Practical navigation.

Global Positioning Systems

- (i) Form of the earth, including principles for direction and distance measuring.
- (ii) Aeronautical maps and charts, including projections and their unique properties and the interpretation of all features.
- (iii) All principles of navigation, including all aspects of track plotting, heading measurement, wind effect, map reading, keeping a track plot, position fixes, situational awareness.
- (iv) All principles of flight planning, including selection of proper maps and charts, weather and other information services, safety heights, fuel and alternate landing considerations, filing a flight plan and keeping a nav log.
- (v) Principles, and use of Global Positioning System as an aid to confirm position on map and not as main VMC navigation

(d) *Meteorology*

The atmosphere.

Air pressure / temperature / density.

Pressure systems and wind.

Humidity and precipitation.

Cloud formation.

Thunderstorms.

Visibility.

Air masses.

Frontal systems.

Micro-meteorology.

Climatology.

Altimetry.

Effects of density altitude on aircraft performance.

Flight over mountainous areas.

Ice accretion on aircraft.

The World Meteorology Organization.

Weather forecasting.

Weather information for flight planning /METAR / TAF.

Meteorological broadcasts for aviation / ATIS / SIGMET

(e) *Aircraft Technical General*

All aspects of rotating wing (rotor) design principles, handling, care and inspection.

All aspects of the airframe design principles, airframe systems and their ancillaries, including handling and care.

All aspects of the powerplant and ancillary systems

All aspects of flight and engine instruments

All aspects of installed and / or mobile radio aids and radio navigation systems.

Description and use of fire extinguisher, first aid kit and other safety equipment

(f) *Human Factors*

All aviation physiological medical aspects related to the microlight pilot.

Toxic hazards, including tobacco smoking, alcohol and drugs.

Stress and management of stress.

All aviation psychology aspects related to flight operations, including personality styles, compulsive behavior.

Human performance and limitations.

Judgement and decision making.

Risk assessment.

Development of situational awareness

(g) *Briefing and care of passengers*

Pre-flight briefing, including all applicable legal aspects like indemnities (the pilot can NOT contract out of negligence!).

Description of aircraft and basic principles of flying and airmanship.

Mounting and dismounting and the dangers of loose articles