POWERED GLIDER KNOWLEDGE: SYLLABUS OF TRAINING AND EXAMINATION

1. Note that candidates must hold a GNZ QGP certificate to be eligible for a logbook endorsement for a self-launching powered glider. (A powered glider endorsement is not required for operating gliders with sustainer motors only, but type instruction from a suitably qualified gliding instructor is still required.)

2. The candidate seeking log book endorsement for a self-launching powered glider shall receive instruction in accordance with the following sections that form this appendix:

   (a) Ground Training Syllabus

   (b) Flight Training Syllabus

3. Completion of training is to be recorded on the appropriate sheets. Instructors shall initial in the "Brief" column when the item is first briefed, taught or demonstrated. The "Comp" column is initialled and dated when the pupil is considered competent.

4. The sequence of exercises is a guide only. A number of exercises may be covered during any given flight.

5. The attached sheets form the training record for each pilot and shall be retained for a period of 3 years after completion. They must be available for inspection by an officer of the CAA if required.

6. Candidates are required to be examined in, and to have a broad knowledge of, the following:

   (a) The Civil Aviation Act, 1990, the Civil Aviation Rules, especially Parts 91 and 104, and the GNZ Manual of Approved Procedures relating to the operation of gliders and powered gliders, including pertinent air traffic service practices and procedures.

   (b) The elementary principles of aeronautical charts.

   (c) The elementary principles of aeronautical meteorology including factors affecting glider flying.

   (d) The elementary principles of theory of flight and powered glider limitations.

   (e) The basic principles of powered glider construction.

   (f) Safety practices and emergency procedures relevant to powered gliding operations.

   (g) Human Factors relating to the operation of powered gliders.

7 GNZ Advisory Circular AC 2-14 Powered Glider Basic Aeronautical Knowledge provides sufficient material to prepare applicants for examination. Club CFI's have access to a suitable examination paper.

GROUND TRAINING SYLLABUS

Name: _____

Affiliate: _____

	Brief	Comp	Date		Brief	Comp	Date
Power Glider Operations				**Principles of Flight**			
Use of this Training Record				Forces (Lift, Drag, Thrust, Wt)			
Engine & Glider logbooks				S&L under power			
Maintenance schedules				Climbing with power			
Weight and balance				Descending with power			
Ground towing / handling				Turning under power			
Securing / picketing				Stalling			
Rigging and derigging				T/o performance			
Refuelling procedures				Landing performance			
Daily Inspection (DI)				Stability and control			
Use of airspace				Propellers			
Power Glider Systems							
2 stroke engine design / ops				Fuel systems			
4 stroke engine design / ops				Carburettor systems			
Propellers				Electrical systems			
Extension / retraction system				Engine instrumentation			
Ignition systems				Emergency equipment			

POWERED GLIDER FLIGHT TRAINING SYLLABUS

Name: _____

Affiliate: _____

	Brief	Comp	Date
FLIGHT PREPARATION			
- Glider famil			
- Documentation			
- Pre Flight DI			
- Engine starting / warm-up			
- Power check			
GROUND HANDLING			
- Use of power			
- Directional control			
- Use of brakes			
CONTROLS			
- Effects of slipstream			
- Engine controls			
- Propeller controls			
TAKEOFF WITH POWER			
- Pre take off checks			
- Launch procedure			
- Ground roll / lift off			
- Normal climb			
- Engine shutdown / retraction			
- Launch in crosswinds			
POWERED FLIGHT			
- Straight and Level			
- Turning			
- Cruise			
- Climbing			
- Descending			
- Effect of configuration			
STALLING			
- HASELL checks			
- Stall recognition/recovery			
- Stall – power on / power off			
- Stall in take off configuration			
- Stall in approach config'ns			
- Incipient spin & recovery			
- Full spin & recovery			
- Spiral dive & recovery			

	Brief	Comp	Date
CIRCUIT & LANDING			
- Normal: engine stowed			
- Pre landing checks (SUFB)			
- Landing with engine at idle			
- Go around with power			
- Landing in crosswind			
ADVANCED EXERCISES			
- Short take off			
- Short landing			
- Max rate climb			
- Max angle climb			
- X/C cruising			
SITUATIONAL AWARENESS			
- Lookout / scanning			
- Right of way / etiquette			
- Use of airspace			
- Out landing decision making			
- Safety around propellers			
NON-NORMAL SITUATIONS			
- Low acceleration on t/o			
- Low level launch failure			
- Engine failure on approach			
- Fire in flight			
- Carburettor icing			
- Engine control failures			
- Engine limit exceedance			
- No instrument circuit			
- CO contamination /poisoning			
SOLO OPERATIONS			
- Responsibilities as PiC			

LOGBOOK SIGN-OFF			
- 3 Safe solo flights			
- Multi-choice exam			