UNIT 1.03 – GROUP D (POWERED PARACHUTE) SYLLABUS

ELEMENT: 1. THE AEROPLANE (Daily inspection)

Standard	Before Solo	Pilot Certificate	Inst Rating
1.1 Complete pre & post flight administration			
• Flight briefing and planning according to current regulations and Recreational Aviation Australia Inc. Operations Manual	3	2	1
• Aeroplane performance and loading limitations calculated using the Flight Manual	3	2	1
• Aeroplane maintenance serviceability determined	3	2	1
• Canopy types, characteristics and performance considerations	3	2	1
1.2 Perform daily and pre-flight inspection			
• Canopy examination conducted as per approved checklist	3	2	1
• Base examination conducted as per approved checklist	3	2	1
1.3 Certify daily inspection			
• Record and certify required details of daily inspection in accordance with regulations	3	2	1
• Canopy type and performance endorsement requirements complied with	3	2	1

ELEMENT: 2. THE CONTROLS

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
Flight controls			
2.1 Pitch			
• Pitch control achieved by power application/reduction	3	2	1
2.2 Yaw			
• Yaw control achieved by flaring canopy in the direction of turn	3	2	1
Engine Controls			
2.3 Master / Ignition			
• Operation of master switch, ignition switch/s, starter system	3	2	1
2.4 Throttle			
• Operation of throttle to increase and decrease engine power	3	2	1
2.5 Fuel supply			
• Operation of aeroplane fuel containment tank/s, fuel delivery system to engine, quantity indicator/s, auxiliary fuel pump/s, fuel flow indicators, refuelling procedures	3	2	1
2.6 Start and stop engine			
• Pre start warm up checks are completed and engine is started in accordance with Flight Manual	3	2	1
• After start warm up checks are completed in accordance with Flight Manual	3	2	1
• Emergencies are managed in accordance with Flight Manual	3	2	1
• Pre and after shutdown checks are completed in accordance with Flight Manual	3	2	1
2.7 Base operations			
• Familiarisation of features specific to the base	3	2	1

ELEMENT: 3. INSTRUMENTS

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
3.1 Engine management instruments			
• Identification, understanding, operation and monitoring of all engine instrumentation	3	2	1
3.2 Fuel management instruments			
• Identification, understanding, operation and monitoring of fuel management instruments	3	2	1
3.3 Flight instruments			
• Identification, understanding, operation and monitoring of aeroplane flight instruments	3	2	1

ELEMENT: 4. FUEL SYSTEM, USE AND MANAGEMENT

Standard	Before Solo	Pilot Certificate	Inst Rating
4.1 Fuel system			
• Components of fuel system	3	2	1
4.2 Plan fuel requirements			
• Duration of flight determined • Fuel reserves determined • Total fuel requirement determined	3 3 3	2 2 2	1 1 1
4.3 Refuel aeroplane			
• Aeroplane is refuelled in accordance with Flight Manual, health and safety and local requirements.	3	2	1

ELEMENT: 5. TAXIING

Standard	Before Solo	Pilot Certificate	Inst Rating
5.1 Taxi aeroplane			
• Ground control (fixed or steerable steering) • Forward movement is accomplished by use of engine power (thrust) • Brakes are used to arrest or control forward movement • Canopy controls are used to assist in directional control, and canopy position	3 3 3 3	2 2 2 2	1 1 1 1

ELEMENT: 6. ENGINE WARM UP AND CARRY OUT PRE TAKE-OFF CHECKS

Standard	Before Solo	Pilot Certificate	Inst Rating
6.1 Carry out Pre Take-off checks			
• Engine warm up and perform pre take-off checks	3	2	1
• Aircraft correctly configured for intended operation	3	2	1

ELEMENT: 7. TAKE-OFF AEROPLANE

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
7.1 Line-up aeroplane			
• Aeroplane lined up in the centre of the runway in take-off direction and line-up checks carried out	3	2	1
• Preparation of canopy on ground for inflation	3	2	1
7.2 Canopy transition			
• Canopy inflation	3	2	1
• Canopy transition from ground to flying position	3	2	1
• Pre take-off checks on canopy	3	2	1
7.3 Take-off			
• Take-off power is applied, aeroplane direction on runway centre is maintained, canopy position observed and lift off established at manufacturers recommended airspeed	3	2	1
• Climb, airspeed and take-off direction maintained as required	3	2	1
7.4 Perform after take-off checks			
• After take-off checks performed	3	2	1
7.5 Short field take-off			
• Perform a short field take-off	3	2	1

ELEMENT: 8. STRAIGHT AND LEVEL FLIGHT

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
8.1 Maintain straight and level flight			
• Power is adjusted to achieve a constant height, heading and airspeed	3	2	1

ELEMENT: 9. CLIMBING AND DESCENDING

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
9.1 Climbing			
• Power is adjusted to achieve an increase in altitude at a range of rates of climb (maximum climb, cruise climb and gentle climb)	3	2	1
• Aeroplane is levelled off from climb at a nominated altitude	3	2	1
9.2 Descending			
• Power is adjusted to achieve a decrease in altitude at a range of rates (from glide/idle descent through to powered descent)	3	2	1
• Aeroplane is levelled off from descent at nominated altitude	3	2	1

ELEMENT: 10. TURNING FLIGHT

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
10.1 Level, climbing and descending turns			
• Clear airspace procedure carried out	3	2	1
• Aeroplane is turned during level, climbing, descending and gliding manoeuvres	3	2	1
• Turns are performed at varying angles of bank	3	2	1
• Turns to nominated headings or geographical features are achieved	3	2	1

ELEMENT: 11. CANOPY STALL RECOVERY PROCEDURES

Intentional canopy stalling not permitted; recovery procedures to be practiced

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
11.1 Canopy stall			
• Verbally explain canopy stall and causal factors	3	2	1
• Pre stall recognition and recovery	3	2	1
11.2 Canopy collapse			
• Verbally explain canopy collapse and causal factor	3	2	1
• Practically demonstrate canopy collapse recovery actions	3	2	1

ELEMENT: 12. ENGINE FAILURE ON TAKE-OFF

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
12.1 Manage engine failure on take-off			
• Immediate actions are performed in accordance with Flight Manual	3	2	1
• A landing area is selected within gliding distance; emergency procedures are performed in accordance with the Flight Manual	3	2	1

ELEMENT: 13. ENGINE FAILURE IN CIRCUIT (GLIDE APPROACH)

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
13.1 Manage engine failure on crosswind, downwind, base and final circuit legs			
• Immediate actions are performed in accordance with Flight Manual	3	2	1
• The most suitable landing area within gliding distance is selected	3	2	1
• Emergency procedures are performed according to Flight Manual	3	2	1

ELEMENT: 14. CIRCUITS

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
14.1 Perform circuits and approach for landing			
• Circuits are conducted in accordance with appropriate regulations including RA-Aus Operations Manual and local approved procedures	3	2	1
• Circuit checklists are carried out in accordance with Flight Manual and approved training procedures	3	2	1
• Circuit radio procedures carried out in accordance with appropriate regulations including RA-Aus Operations Manual and local approved procedures	3	2	1
• Conflict with other traffic in the circuit area is avoided	3	2	1

ELEMENT: 15. LANDING

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
15.1 Normal landing			
• Aeroplane is landed from a controlled descent and aligned with the runway centre line	3	2	1
• Aeroplane is landed into wind	3	2	1
• Ballooning and bouncing controlled	3	2	1
• Directional control is maintained during landing and roll out phase	3	2	1
• Aeroplane is stopped within the available runway length or touch and go manoeuvre is initiated	3	2	1
• After landing checks completed	3	2	1
15.2 Cross wind landing			
• Aeroplane landed within the cross wind and pilot capabilities	3	2	1
• Ballooning and bouncing controlled	3	2	1
• Aeroplane is landed from a controlled descent and aligned with the runway centre line	3	2	1
• Drift and crosswind effect are controlled. Aeroplane is stopped within the available runway length or a touch and go manoeuvre is initiated	3	2	1
• After landing checks completed	3	2	1
15.3 Short field landing			
• Aeroplane touches down on or within 40M beyond the nominated touchdown point	3	2	1
• Maximum braking applied to stop aeroplane (without wheel lockup, if applicable)	3	2	1
• Directional control maintained.	3	2	1
• Ballooning and bouncing controlled	3	2	1
• Full stop landing, canopy deflation, engine shutdown	3	2	1
15.4 Soft field landing			
• Aeroplane touches down on or within 40M beyond the nominated touchdown point using soft field landing technique	3	2	1
• Braking used as required(if applicable)	3	2	1
• Directional control maintained	3	2	1
• Ballooning and bouncing controlled	3	2	1

ELEMENT: 16. MISSED APPROACH AND GO-AROUND

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
16.1 Missed approach and go around			
• Decision to perform a missed approach procedure is made when a safe landing cannot be achieved	3	2	1
• Control of aeroplane and situational awareness of circuit pattern and traffic is maintained	3	2	1

ELEMENT: 17. FIRST SOLO CIRCUIT

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
17.1 Perform solo flight circuit			
• Fly one circuit (as briefed) and conduct a full stop landing	3	-	-

ELEMENT: 18. FORCED LANDING

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
18.1 Perform a forced landing on take-off			
• Immediate actions are performed in accordance with Flight Manual	3	2	1
• A suitable landing area is selected within gliding distance, all emergency checks are carried out in accordance with the Flight Manual and if engine restart is not successful, a controlled landing is achieved	3	2	1
18.2 Perform a forced landing in the circuit			
• Immediate actions are performed in accordance with Flight Manual	3	2	1
• A suitable landing area is selected within gliding distance, all emergency checks are carried out in accordance with the Flight Manual and if engine restart is not successful, a controlled landing is achieved	3	2	1
• Correct engine management for engine type in all flight modes	3	2	1
18.3 Perform a forced landing in training area			
• Immediate actions are performed in accordance with Flight Manual	3	2	1
• A suitable landing area is selected within gliding distance, all emergency checks are carried out in accordance with the Flight Manual and if engine restart is not successful, a controlled landing is achieved	3	2	1
• Correct engine management for engine type in all flight modes	3	2	1

ELEMENT: 19. MANAGE ABNORMAL SITUATIONS

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
19.1 Unusual Canopy inflation			
• Return aeroplane to normal flight attitude and undertake a simulated forced landing keeping the aeroplane under control	3	2	1
• Loss of directional control on take-off managed appropriately	3	2	1
• Horseshoe inflation managed appropriately	3	2	1
19.2 Steering line failure			
• Return aeroplane to normal flight attitude and undertake a simulated forced landing keeping the aeroplane under control	3	2	1
19.3 Manage in-flight abnormal situations			
• Abnormal situations occurring with fuel, electrical, airframe, flight instrument, flight control, engine, navigation, communication equipment, passenger, fire, smoke or fumes are identified	3	2	1
• Appropriate emergency action and procedures are carried out in accordance with Flight Manual while maintaining control of the aeroplane	3	2	1
• Correct engine management for engine type in all flight modes	3	2	1

ELEMENT: 20. PRECAUTIONARY SEARCH AND LANDING

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
20.1 Conduct precautionary search and landing			
• Acknowledgement of need to conduct a precautionary search and landing	3	2	1
• Radio broadcast with advice of intentions	3	2	1
• A landing area is selected and inspected for suitable approach, landing distance, surface, and go around clearance	3	2	1
• The aeroplane is landed	3	2	1

ELEMENT: 21.TRAINING AREA SOLO

Flying Standard	Before Solo	Pilot Certificate	Inst Rating
21.1 Perform solo flight in training area			
• Fly for a defined time and perform defined manoeuvres in the training area	3	2	1
• Return to airfield and perform a full stop landing	3	2	1

NOTE: In accordance with Section 2.01 Paragraph 2, a Pilot Certificate holder endorsed with Group D must only act as PIC of Powered Parachute recreational aeroplanes fitted with canopy types and performance characteristics for which they hold a valid logbook endorsement. Accordingly, the RA-Aus Examiner must endorse a Group D Pilot Certificate holder's logbook with relevant information of the canopy type and performance characteristics they have been trained to operate. For type endorsement purposes, all elements of this syllabus are required to be completed.

The logbook endorsement must state whether the canopy type is Box (rectangular), Semi-elliptical or Elliptical and also state the performance characteristic of each type as being Low or High performance. A logbook endorsement must be sought for each combination of type and performance characteristic.

Only certified low performance canopies matched to a certified base by an approved manufacturer are to be used for initial flight training.

-End of Group D Syllabus-