AUSTRALIAN PARACHUTE FEDERATION

Training Operations Manual
(TOM)

VERSION 01-2026

STATUS: MANDATORY

Warning

Parachuting and flying in parachuting aircraft can be dangerous.

IMPORTANT: Version Control

It is important that members refer to the current version of this Training Operations Manual. Current Version number is shown on the front cover and in the below table. As the Training Operations Manual is administered exclusively by the APF, it will be updated and amended when and as required.

Current versions of the Training Operations Manual and any associated forms can be found on the APF website.

Once this manual is adopted by a training organisation, it is the responsibility of the Chief Instructor to ensure that any mandatory requirements of the APF are incorporated into the manual and any variations are approved by the National Training Officer, and the National Safety Officer where it involves student training.

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AMENDMENTS

REVISION	AMENDMENT DETAILS
01 April 2026	• Clarify persons who can be carried on a PJE aircraft • Updates to Class B Training Table (Appendix H & I) • Replace 'Sporting Licence' with 'Annual Recency Certificate' and remove all reference to 'licence'.
01 April 2025	• Remove DZSO endorsement requirement to administer Certificate Class A exams • Update terminology regarding nomination of GCA • Ensure clarity surrounding restricting carrying passengers on a jump aircraft
01 April-2023	• Minor wording changes to Appendix E

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PART 1 – FUNCTION, DEFINITIONS AND POLICY

1.1 Purpose

1.1.1 The operations covered by this Manual are those required by the APF Operational Regulations and Regulatory Schedules to be described in a Training Operations Manual.

1.1.2 This industry standard Training Operations Manual (TOM) is issued as a service for use by Australian Parachute Federation (APF) member training organisations and to holders of Instructor ratings and those who aspire to hold Instructor ratings.

1.1.3 The TOM outlines the areas in which instruction is to be given and details the training tables for student, novice and advanced training prescribed by APF regulations. However it makes no attempt to define how this instruction is to be delivered. The training organisation or individual instructor will therefore need to have lesson plans suited to the particular training environment.

1.2 Application

1.2.1 The provisions of this Manual became effective on 15 May 2017.

1.2.2 Once adopted by a Chief Instructor (CI), the TOM is applicable to all APF members involved in that organisation's training operations and participating in deemed training descents.

1.2.3 All parachute training operations must be conducted in accordance with the Operational Regulations, Regulatory Schedules, applicable CASA regulations, any mandatory APF directives, and this Manual.

1.2.4 This Manual must be read in conjunction with the current APF Operational Regulations and Regulatory Schedules. Where an inconsistency arises, the regulations will prevail.

1.3 Standard Issue or Modification for Use

1.3.1 This TOM is published as an example of an acceptable training operations manual and does not claim to be definitive or the only acceptable training operations manual. The APF recognises that different training organisations may safely use other manuals.

1.3.2 This TOM is one which the CI may use as the Group Member's accepted manual. There is however, no compulsion for the CI to do so. If the CI wishes to use this manual without any changes, the CI need only, when seeking approval to use it, name the current issue of the TOM.

1.3.3 Alternatively, the CI may use some sections from this Manual and modify or rewrite others, or the CI may use an entirely different manual. If changes to this standard TOM are desired, these must be approved in writing by the Safety and Training Manager (STM) before the manual becomes effective, and a copy provided to the APF Office.

1.3.4 If a CI has approval to use a training operations manual other than this one, it is the CI's responsibility to ensure that mandatory requirements of the APF are incorporated into the manual.

1.4 APF Amendments to Standard Issue and Member Feedback

1.4.1 This Manual will undergo continuous improvement and be updated periodically. Amendments will be effective only after they have been approved by the APF. All such changes are communicated in the appropriate APF publications and are assumed to have been adopted by any CI who has nominated the standard TOM as their own training operations manual and who does not hold an authorised variation to that change.

1.4.2 A CI who wishes not to adopt any such change made to this Manual must apply to the STM in writing for approval and a copy provided to the APF Office.

1.4.3 A current copy of this manual must be readily available to each instructor engaged in instructional duties and to the DZSO.

1.4.4 The APF Office is happy to receive feedback about this manual, especially any improvement suggestions.

1.5 Definitions

1.5.1 Words not defined in this Manual have the meaning ascribed to them in the APF Constitution or Dictionary of Definitions on the APF website (reproduced in Regulatory Schedule 50) unless a contrary meaning appears from the context.

TERM	INTERPRETATION / DEFINITION
descent *or* **jump**	A parachute descent/jump, being the time from when the parachutist exits the aircraft until the parachutist lands.
skydiver	The holder of an APF skydiver certification or parachutist certificate or an APF student parachutist/skydiver membership. ***'Skydiver' is interchangeable with the term 'Parachutist'.***

1.5.2 Parachutist/skydiver certifications, issued by the APF are available at six classification levels, with class 'F' being the highest. Students are issued a 'student membership', not a 'certification'.

1.6 Chief Instructor Responsibilities

1.6.1 The CI is responsible for the conduct of the parachute training operations covered by this manual, and for ensuring that the provisions of this manual are adhered to.

1.6.2 The CI may delegate duties connected with training operations to suitably qualified people. However, overall responsibility for the conduct of the training operation remains with the CI.

1.6.3 In order to adequately supervise training operations, the CI must either:

(a) attend and be actively involved in instruction on site a minimum of one-third of operational time, calculated in any 90 days; or

(b) exercise supervision in accordance with a written plan approved by the STM which may involve consultation with the STO.

1.6.4 The CI must not supervise more than one training operation simultaneously without the approval of the STM.

1.6.5 Training organisations are required to implement a system of accounting for jumpers at the end of operations. *Refer to the group member's SMS for their Search and Rescue (SAR) procedure, which will be checked as part of the DZ's annual audit.*

1.7 Student Equipment

1.7.1 Students must use only parachuting equipment supplied and maintained by the organisation except as otherwise provided for in 1.7.3.

1.7.2 Students being trained in either the Solo Freefall Training Table (SLD/IAD) or the Accelerated Freefall Training Tables will use a harness/container system:

(a) with ram-air main parachute and ram-air reserve of makes/models known for reliable openings and docile handling characteristics; and

(b) where the cut-away/reserve deployment system must be one of the following types:

(i) a Single Operation System (SOS) fitted with a reserve static line (RSL) which causes the reserve to be activated when the main risers are released; or

(ii) a Dual Operating System (DOS) with a minimum of RSL and SOS on the reserve; or

(iii) a Two Action System (TAS) fitted with a reserve static line (RSL) which causes the reserve to be activated when the main risers are released.

1.7.3 Notwithstanding the provisions of 1.7.2, students who have already been trained may continue to use the type of equipment on which they were trained.

1.7.4 Tandem students will use equipment which is approved for use in Australia.

For details of the approval process, see APF RAC 218B and APF SB 081014.

1.7.5 Other than tandem students, all students will use equipment where the main is activated either by static-line, ripcord or throw-away pilot chute.

Examples of typical key words used in demonstrating main activation for equipment predominantly used by students are shown in Appendices B and C of this manual.

1.7.6 The main and reserve parachute used for each jump by a student will be selected after consideration of the weight, age, experience and competence of the student.

1.7.7 All static-line descents will be made using a direct-bag main deployment system.

1.7.8 All student descents (other than into water) will be made with equipment using a ram-air reserve parachute utilising a free bag reserve deployment system.

1.7.9 The equipment of each student parachutist must be thoroughly checked by an instructor immediately before emplaning.

1.7.10 Hearing protection should be made available to student and novice parachutists should they request it.

1.8 Log Book Entries

1.8.1 The instructor, DZSO or coach who makes entries in the student's log book as required by APF regulations shall ensure that the entries are a full record of the student's progress and achievements for each jump with regard to the aims and manoeuvres required for that jump. (Also refer Section 3.6.7 (b).)

1.8.2 The entries referred to above must also include the instructor's, coach's or DZSO's recommendations for the student's next descent.

PART 2 – BASIC TRAINING COURSES

This section covers the requirements to be met before a student parachutist makes their first parachute descent under the auspices of the APF.

2.1 General Provisions

2.1.1 A student's first descent may be any one of the following types:

- Solo Freefall (SFF)
  - Static-line deployment (SLD)
  - Instructor-assisted deployment (IAD)
- Accelerated Freefall (AFF)
  - Accelerated Freefall (AFF)
  - Tandem Assisted Freefall (TAF)
- Tandem

2.1.2 Where a student initially trained for one type of descent is to be converted to another type of descent, the training prescribed for that descent must be completed before the student makes that descent.

2.1.3 For any student descent not otherwise described in this manual, the minimum pull height for main deployment is 3,500 feet AGL.

2.2 Course Prerequisites

2.2.1 The student must be issued with an APF Student membership before undergoing any practical training. At the time of membership application, the student must be made aware of the potential dangers of parachuting and must not be allowed to continue training until the application form has been fully completed.

2.2.2 During a [first jump] course, the ratio of students to instructors must not exceed 12 to 1. Only an Instructor with a Course Trainer endorsement and the relevant AFF or SFF endorsement may conduct AFF/TAF or SFF first jump training.

2.3 SFF Training Course (SLD or IAD)

Before making a descent utilising either static-line or instructor-assisted deployment techniques, the student must have a good knowledge of the following theoretical and practical aspects of parachuting as it affects the student:

(a) **Organisation of parachuting operations**: The role of instructors, DZSO, the CI; and the Operational Regulations and Regulatory Schedules.

(b) **Equipment**: The nomenclature, operation and proper treatment of the parachute equipment to be used on the first jump.

(c) **Aircraft Procedures**. The student must understand the procedures required for safety with respect to the aircraft, both on the ground and in flight; and must understand from whom orders are to be taken while the aircraft is in flight.

(d) **Aircraft exit**. The student must be able to demonstrate an exit from the aircraft which allows them to leave the aircraft safely and adopt a stable (arch) position in the airstream, such that the parachute has the maximum chance of deploying cleanly without risk to the aircraft.

(e) **Stability**. The student must understand the reason for, and be able to demonstrate, the stable relaxed freefall position and the awareness count.

(f) **Procedures under canopy**. The student must be able to demonstrate that they understand how to:

- check that the canopy is properly deployed;
- steer the canopy toward the landing area;
- follow the directions of the TA; and
- deal with a bad spot, i.e. control the canopy landing independent of the TA.

See 2.8 for more detail with regard to ram-air canopies.

(g) **Emergency Procedures**

(i) The student will be able to demonstrate the ability to recognise whether the canopy has malfunctioned or not, and must demonstrate, by the use of a suspended harness, appropriate techniques for dealing with routine opening problems, line twists or any other canopy or deployment malfunction.

(ii) The student will also be able to explain and demonstrate the techniques for handling and landing the reserve parachute.

(iii) The student will also be able to describe and demonstrate appropriate reactions to emergencies in the aircraft, including loss of power at any altitude, catastrophic aircraft failure, fire, canopy open in aircraft, procedure after a forced or crash landing, or tailplane strike.

Examples of typical key words used in demonstrating Emergency Procedures for equipment predominantly used by students are shown in Appendix B of this manual.

(h) **Landing techniques**. The student will be able to demonstrate a landing technique, suitable for the equipment to be used and the prevailing conditions, which will allow them to land with minimal risk of injury. This must include landings under main and reserve parachutes and in each case must involve parachute landing roll (PLR) training. See 2.7.1 (h) with regard to ram-air canopies.

(i) **Hazardous landings**. The student will be able to explain and demonstrate appropriate action to deal with landings in hazardous areas including water, trees, power lines, buildings, and hard surfaces. This must include landings both under the main canopy and under reserve. The student will also be able to demonstrate techniques to deal with being dragged by the canopy (main or reserve) after landing.

2.4 Accelerated Freefall (AFF) Training Course (Non-Tandem)

2.4.1 Before making a **non-tandem** descent on the AFF Training Table, the student must have a good knowledge of the following theoretical and practical aspects of parachuting as it affects the student [see also 3.6.7 (c)]:

(a) **The organisation of parachuting operations**: The role of instructors, DZSO, the CI; and the Operational Regulations and Regulatory Schedules.

(b) **Equipment**: The nomenclature, operation and proper treatment of the parachute equipment to be used on the first jump.

(c) **Aircraft Procedures**. The student must understand the procedures required for safety with respect to the aircraft, both on the ground and in flight, and must understand from whom orders are to be taken while the aircraft is in flight.

(d) **Aircraft exit**. The student must be able to demonstrate climb-out and exit procedures which will allow a safe and stable exit from the aircraft.

(e) **Freefall Procedures**. The student must understand and be able to demonstrate the freefall procedures required.

The freefall manoeuvres are described in Part 4 of this manual.

(f) **Freefall emergencies**. The student will understand and be able to demonstrate the procedures required by:

- loss of one or both jumpmasters;
- a hard pull;
- a floating ripcord / lost handle;
- jumpmaster's signal for loss of height awareness; and
- uncontrolled instability.

(g) **Procedures under canopy**. The student must be able to demonstrate that they understand how to:

- check that the canopy is properly deployed;
- steer the canopy toward the landing area;
- follow the directions of the TA; and
- deal with a bad spot, i.e. control the canopy landing independent of the TA.

See 2.8 for more detail with regard to ram-air canopies.

(h) **Emergency Procedures**

(i) The student will be required to demonstrate the ability to recognise whether the canopy has malfunctioned or not, and must demonstrate, by the use of a suspended harness, appropriate techniques for dealing with routine opening problems, line twists or any other canopy or deployment malfunction.

(ii) The student will also be able to demonstrate the techniques for handling and landing the reserve parachute.

(iii) The student will also be able to describe and demonstrate appropriate reactions to emergencies in the aircraft, including loss of power at any altitude, catastrophic aircraft failure, fire, canopy open in aircraft and procedure after forced or crash landing, tail plane strike.

Examples of typical key words used in demonstrating Emergency Procedures for equipment predominantly used by students are shown in Appendix B of this manual.

(i) **Landing techniques**. The student will be able to demonstrate a landing technique, suitable for the equipment to be used and the prevailing conditions, which will allow them to land with minimal risk of injury. This will include landings under main and reserve parachutes and in each case will involve parachute landing roll (PLR) training. See 2.7.1 (h) with regard to ram-air canopies.

(j) **Hazardous landings**. The student will be able to explain and demonstrate appropriate actions to deal with landings in hazardous areas including water, trees, power lines, buildings, and hard surfaces. This must include landings both under the main canopy and under reserve. The student will also be able to demonstrate techniques to deal with being dragged by the canopy (main or reserve) after landing.

2.4.2 Before making a TAF descent on the Tandem-Assisted part of the Accelerated Freefall Training Table (Stage 1), the student must have a good knowledge of the theoretical and practical aspects of parachuting as it affects the student as defined in 2.4.1.

Training of emergency procedures (f) and (h) and landing techniques (i) and (j) *prior* to the first TAF descent is optional as consideration must be given to knowledge and skills development that is either not required for the first TAF descent or may conflict with practical requirements (e.g. raise their legs for landing *versus* PLRs). If these aspects are not included prior to a TAF Stage 1 descent, the Course Trainer has to ***ensure*** that the student is trained in these aspects and has a good theoretical and practical knowledge of them prior to the AFF Stage 2 descent.

2.5 Tandem Training Course

2.5.1 Before making a tandem descent, the student shall be given a thorough briefing by a Tandem Master on the following:

(a) **Equipment**: Explanation of the equipment to be used and the fitting of harness

(b) **Aircraft Procedures**. The student must understand the procedures required for safety with respect to the aircraft, both on the ground and in flight, and will also be aware of the actions to be taken in the event of emergencies in the aircraft.

(c) **Aircraft Exit**. The student must be taught climb-out and exit procedures which will allow a safe and stable exit from the aircraft.

(d) **Freefall Procedures**. The student must understand the freefall procedures required.

(e) **Procedures under canopy**. The student must be taught the procedures applicable for the canopy flight.

(f) **Emergency Procedures**. The student must understand the procedure in the event of a parachute malfunction.

(g) **Landings**. The student will be able to demonstrate a landing technique suitable for the equipment to be used and the prevailing conditions, including the ability to raise their legs for landing.

2.5.2 A student may be briefed on additional tasks to enhance their tandem experience (e.g. reading an altimeter or deploying the main parachute), but this will not be considered a training stage on a training table.

2.6 Orientation Flights

2.6.1 APF Exposition 4.3.2 restricts the occupants of aircraft in support of parachute operations to:

a) parachutists who are members of the APF;

b) flight crew; and

c) an officer or delegate of CASA who is on board to carry out his or her duties. This prohibits the carriage of any other type of “passenger”.

2.6.2 Orientation flights on a PJE aircraft are only permitted for student parachutists who intend to conduct a parachute descent. Students may be permitted on an orientation flight to familiarise and confirm certain aspects of the parachute training. This section defines the training and procedures necessary before a student may make an orientation flight.

2.6.3 Before an orientation flight, a person must be issued with an APF Student membership. At the time of membership application, the student must be made aware of the potential dangers of parachuting activities and will not be permitted to make an orientation flight until the application form has been fully completed, membership has been activated and required training completed.

2.6.4 Prior to an orientation flight, one of the following procedures must be followed. Either:

(a) the student must be fully briefed on all procedures required of a tandem student. During an orientation flight, the student must wear a tandem student harness, and at all times be accompanied by an APF Instructor with a valid Tandem endorsement.

The student will be fully briefed by an Instructor with a Tandem endorsement on all the components mentioned in 2.5.1

(b) the student permitted on an orientation flight must:

- have been trained and prepared to conduct a solo jump (either in the SFF or AFF method),
- wear an approved student parachute system, and
- at all times be accompanied by a qualified APF Instructor with the relevant endorsement, either SFF or AFF.

Prior to the orientation flight, the student will be trained by an Instructor with Course Trainer endorsement and either an SFF or AFF endorsement on the following components of the First Jump Course (TOM 2.3/2.4):

(i) conduct in and around the aircraft;

(ii) danger of their parachute opening in the aircraft;

(iii) jumpmaster's commands in case of emergency;

(iv) mode of emergency exit from the aircraft;

(v) deployment of parachute, including body position and stability;

(vi) handling and landing of the parachute;

(vii) freefall emergencies and malfunctions/emergency procedures;

(vii) leaving the aircraft after landing; and

(viii) procedures in case of crash landing, forced landing or fire after landing.

2.7 Training for First Non-Tandem Ram-Air Parachute Descent

2.7.1 Before making a descent other than a tandem descent, using a ram-air parachute, a student will be fully briefed by an Instructor and will have a thorough knowledge of:

(a) mode of deployment of the canopy;

(b) appearance and characteristics of a malfunctioned canopy, a well deployed canopy, and one with minor deployment problems;

(c) procedures necessary to deal with or rectify any problems, including:

- unable to extract hand-deployed pilot-chute from BOC;
- floating ripcord;
- hard ripcord pull;
- pilot chute hesitation;
- high-speed and horse-shoe malfunctions;
- low-speed malfunctions;
- two canopies out;
- broken suspension lines;
- broken steering line;
- closed end cells;
- slider not fully down;
- one brake released on opening;
- line twists; and
- a damaged canopy;

(d) characteristics and handling of the reserve canopy, and the technique for landing safely under the reserve canopy with minimal risk of injury;

(e) basic procedures to be followed in the event that both the main and reserve canopy are deployed without the main having been released;

(f) the speed and range of a ram-air canopy;

(g) mode of target/canopy control assistance if this is to be used. Alternatively, the student will be instructed on a strategy which will allow them to land in a safe area;

(h) the landing technique to be used. The student will be taught two methods of landing their canopy:

(i) a flared landing, with or without using a Parachute Landing Roll (PLR) position; and

(ii) a half-brake approach using a PLR;

(i) the effect of turbulence on a ram-air canopy, the conditions under which turbulence is likely to occur, and the technique for dealing with turbulence.

2.7.2 Before making a descent using a ram-air parachute, other than a tandem descent, the student will understand the tasks to be performed during the descent, including:

- practice manoeuvres under canopy for turns and landing;
- stall practice and stall recovery;

- instructions and signals from the TA; and
- landing pattern and flare height.

2.8 Pre-First Jump Assessment

2.8.1 Before a student makes a first descent of any of the types listed in 2.1.1, the student will pass an assessment set by the CI.

2.8.2 For first non-tandem descents, the assessment will:

(a) be administered by an Instructor with a Course Trainer endorsement and the relevant AFF or SFF endorsement;

(b) consist of written and practical assessment (which will include assessment of the student in a suspended harness);

(c) test the student's theoretical knowledge and practical ability, covering all areas which may affect the student's safety and performance during the first descent and include written questions on:

- exercises under canopy: stalls, stall recovery, turns;
- where to expect turbulence;
- landing pattern;
- flare height and stall recovery;
- when to use a PLR and describe the PLR position;
- procedures to be followed if two canopies are deployed; and
- "Do you believe you are able to land your canopy unassisted?"

2.8.3 An approved pre-first-jump written assessment is provided in Appendix C of this manual. Any significant changes to this written assessment proposed by a CI must be resubmitted for approval by the APF.

2.8.4 Any lack of knowledge or ability exposed by the assessment will be corrected before the student is permitted to make a descent.

PART 3 – STUDENT TRAINING TO CLASS A NOVICE SKYDIVER

This section describes part of the training that a student will receive before being allowed to apply for a Class A Novice skydiver certification. It excludes knowledge of parachuting regulations.

3.1 Applicable Training

3.1.1 A student will be trained using one of the following training syllabuses (i.e. student training tables):

(a) SFF Training Table utilising either static-line or instructor-assisted deployment (see Appendix D)

(b) Accelerated Freefall Training Table AFF (see Appendix E);

(c) An approved Modified Student Training Table (see Appendix F).

> ***Note**: RS 54 (and 1.3 and 1.4 of this industry standard TOM) allow a CI to modify the details of a Training Table or draw up an alternative training table, subject to the approval of the STM.*

3.1.2 A student may transfer from one training table to another. If transferring, the student will take up training on the second training table at a stage determined by the DZSO, who will ensure that the student is fully briefed and has the ability to perform safely and competently.

3.1.3 A student who transfers from one training table to another will have received all the basic training required by Part 2 of this manual before making a descent under the second training table.

3.1.4 Comparative Summary of student training syllabuses (without manoeuvres):
***Note:** Min = Minimum exit height; Max = Maximum exit height.*

Stage	Accelerated Freefall			Solo Freefall			Modified SLD/IAD		
	Jump #	Type	Exit	Jump #	Type	Exit	Jump #	Type	Exit
1	1	AFF	9,000' Min	1 - 2 3 - 5	IAD/SLD	3,500' Min 3,000' Min	1 - 4	IAD/SLD	3,000' Min
2	2	AFF	9,000' Min	6	5 sec	3,200' Min	5	AFF	9,000' Min

3	3	AFF	8,000' Min	7	5 sec	3,200' Min	6	10 sec	4,500' Min
4	4	AFF	8,000' Min	8	10 sec	4,200' Min	7	12 sec	5,000' Min
5	5	AFF	8,000' Min	9	12 sec	4,400' Min	8 - 9	15 sec	5,500' Min
6	6	AFF	8,000' Min	10 - 11	15 sec	5,000' Min	10 - 11	20 sec	6,500' Min
7	7	AFF	8,000' Min	12 - 13	20 sec	6,000' Min	12	25 sec	7,500' Min
8	8	AFF	8,000' Min	14	25 sec	6,500' Min	13 - 14	30 sec	8,500' Min
9	9	Solo clear & pull	4,500' Max	15 - 16 17	30 sec Eval	7,500' Min 9,000' Min	15	Eval'n	10,000' Min

3.1.5 In addition to the manoeuvres required in the student training syllabuses described above, to qualify for a Certificate Class A, the student will also be trained using the Class A Canopy Handling Training Table (Appendix G).

3.2 Before each descent

3.2.1 A DZSO is responsible for ensuring that the student is fully prepared for each descent, and that the student's recent parachuting experience and performance is sufficient for the descent to be made safely.

3.2.2 Before being permitted to make each descent in a training table, the student must:

(a) have satisfactorily completed the previous stage of the training table; and

(b) hold the pre-requisite knowledge and skills for the planned descent. The student must fully understand and be able to demonstrate all the procedures, techniques and manoeuvres required for the planned descent.

Note: *See also 1.7.9 – Each student's equipment must be thoroughly checked by an instructor immediately before emplaning.*

3.3 During the descent

3.3.1 The student must satisfactorily demonstrate the procedures, techniques and manoeuvres defined in the training table's minimum requirements and aims for that stage and descent.

3.4 After the descent

3.4.1 Before being permitted to advance to the next stage of the training tables, the student will have demonstrated proficiency in the procedures, techniques and manoeuvres required in the previous stage's descents, i.e. the aims and minimum requirements need to be satisfactorily completed, which may take more than one jump.

3.4.2 Before recommending a student for a Class A Novice skydiver, the CI will ensure that the student has successfully completed all requirements outlined in APF regulations.

Only holders of current instructor ratings are permitted to carry out training descents with students who do not hold a Class A Novice skydiver certification.

3.5 Solo Freefall Training Table (SLD or IAD)

The SFF Training Table incorporates alternative deployment techniques in the early stages: either static-line deployment (SLD) or instructor-assisted deployment (IAD). The difference in the means of deployment of the main canopy involves subtle but very important differences in dispatch technique by the jumpmaster. The stages of the SFF Training Table are detailed in Appendix D.

Due to the added complexities of IAD, an instructor conducting these descents must have completed an APF approved course of instruction on these techniques, hold an endorsement in IAD and have his/her CI's approval to dispatch students using this method.

3.6 Accelerated Freefall Training Table

3.6.1 Training descents may be structured by the CI, provided that they address the aims and include the minimum manoeuvres described in the AFF Training Table shown in Appendix E.

The following stages are detailed in Appendix E Accelerated Freefall Training Table.

3.6.2 For Stage 1, the student may complete the stage by either the AFF or TAF method.

3.6.3 Following a successful Stage 6, the DZSO may, at her/his discretion, allow a student to make solo descents between stages 6, 7, 8 and 9 for the purpose of consolidating and polishing manoeuvres prior to advancing to the next stage.

3.6.4 The heights AGL for the stages of the AFF Training Table shall be:

Stage		Minimum for Exits	Pull completed by:	Open by:
(a)	Stages 1 and 2:	9,000'	4,500'	2,500'
(b)	Stages 3 to 8 inclusive:	8,000'	4,000'	2,500'
(c)	Stage 9:	*[See 3.1.4 & Appendix E]*	3,500'	2,500'

3.6.5 During stages 1 to 3 of the AFF Training Table, the duties of the jumpmaster include:

- authorising the student to commence the climb out
- maintaining grips on the student as required for each stage
- ensure main pilot-chute deployment
- ensure reserve ripcord pull by 2,500 ft in the event of a freefall emergency
- ensure target/canopy control assistance is available to the student under canopy if required
- the division of duties will be established by the CI

3.7 Modified Student Training Table – Solo FF with an AFF

The Modified Student Training Table described in Appendix F is approved for use without the need for a Group Member CI to submit a Modified TOM for separate approval. This hybrid table is based in part on the SFF Training Table and incorporates an AFF descent in Stage 2.

3.8 Class A Canopy Handling Training Table

The Class A Canopy Handling Training Table in Appendix G has in-flight exercises and two landing approach exercises. The student must complete these exercises satisfactorily before being allowed to apply for a Class A Novice skydiver certification.

3.9 Class A Novice Skydiver Assessment

3.9.1 Before a student parachutist applies for a Class A certification, the student will pass a written assessment set by the CI and administered by an instructor.

3.9.2 The assessment will test the student's knowledge of APF regulations and theory of parachuting and cover all areas affecting the student's ability to make safe and proficient parachute descents with minimal supervision. Questions will include: the effects of wing loading and aspect ratio on canopy performance; cause of stalls and their effects on airflow over the aerofoil; relationship of lift and drag to airspeed; and relationship of height loss to turning.

A sample Class A assessment is provided in the "Certificate Class A Training Guide".

3.9.3 Any lack of knowledge exposed by the assessment will be corrected before the student is allowed to apply for the Class A Novice skydiver certification.

PART 4 – NOVICE TRAINING TO CLASS B PROVISIONAL SKYDIVER

This section defines the training that will be given to novice and trainee parachutists. 4.1, 4.2 and 4.3 cover mandatory requirements for the trainee to attain a Class B certification (to become a provisional skydiver). The APF's 'Certificate Class B Training Guide' and 'Canopy Pilot Guide' describe manoeuvres in more detail.

4.1 Freefall Relative Work Training

4.1.1 Before being permitted to make a first relative work descent, the novice will be thoroughly briefed by an instructor and meet the requirements of OR 11.4.

4.1.2 Before being permitted to make a relative work training descent, the novice will be thoroughly briefed on that descent by an instructor or a Certificate B Coach on the syllabus defined in Appendix H of this Manual.

4.1.4 The training descents will be those defined in the APF Class B Freefall Training Table (Appendix H).

4.1.5 Minimum Requirements: Training and Non-Training flatfly RW Descents

The following matrix summarises the type of flatfly RW jumps permitted and the levels of qualification and experience for parachutists involved:

Row	Parachutist Qualification or Experience	Type of flatfly relative work permitted	Number and type of jumpers participating in flatfly relative work
1	Student (not yet completed the student Training Table).	Student training jumps defined in the organisation's TOM.	See applicable AFF and SFF Training Tables. Must be an instructor.
2	Student who has completed all stages of the AFF or SFF Training Table but not yet holds a Certificate Class A.	Novice training jumps defined in the organisation's TOM up to and including stage 6 of Class B Training Table.	At least one other participant must hold an instructor rating (OR 11.4.4 (b)) plus the restrictions described below in rows 3, 4 and 5.
3	Certificate Class A not yet completed Stages 1 to 4 of Class B Training Table.	Novice training jumps defined in the organisation's TOM.	Instructor or approved Cert. B Coach as per Class B Training Table (CBFTT).
4	Certificate Class A after completed Stages 1 to 4 of Class B Training Table.	Novice training jumps defined in the organisation's TOM.	Instructor or approved Cert. B Coach as per Class B Training Table (CBFTT).
		Non-training jumps under the direct supervision of a DZSO holding an SFF or AFF endorsement.	With one other parachutist providing exits are also flatfly in orientation.
5	Certificate Class A after completed Stage 5 of Class B Training Table.	Novice training jumps defined in the organisation's TOM.	Instructor or approved Cert. B Coach as per Class B Training Table (CBFTT).
		Non-training jumps under the direct supervision of a DZSO holding an SFF or AFF endorsement.	No more than three other parachutists providing the DZSO has given the approvals required under OR 11.4.4 (a).
6	Certificate Class A after completed Stage 6 of Class B Training Table.	Non-training jumps under the direct supervision of a DZSO holding an SFF or AFF endorsement.	No more than three other parachutists providing the DZSO has given the approvals required under OR 11.4.4 (a).
7	Certificate Class B (or eligible for B) without a Star Crest.	Non-training / fun jumps.	Certified by CI for up to 10-ways.
8	Certificate Class B and a Star Crest.	Non-training / fun jumps.	10+ ways.

***Note**: Except for SFF training descents, the jumps listed in the matrix may involve an outside camera person as an additional parachutist where the requirements of OR 9.7.1 and 9.7.2 are met.*

4.2 Canopy Handling

4.2.1 The canopy handling training for Class B candidates involves performing a mandatory set of canopy manoeuvres to the satisfaction of the CI. These manoeuvres are described as stages in the Class B Training Table (Appendix H).

4.2.2 Before being permitted to make a canopy training descent, the novice will be thoroughly briefed on that descent by an appropriately qualified and appointed coach or instructor.

4.2.3 The mandatory manoeuvres may be performed:

(a) individually as defined in the stages of the CBTT, at the end of a B-Rel stage; or

(b) as a separate canopy training descent.

4.2.4 In addition to the mandatory manoeuvres described above, it is highly recommended that the Class B candidate also complete the canopy training descent described in Appendix I.

4.3 Parachute Packing Training

4.3.1 Before being qualified as a Class B provisional skydiver, the novice will be trained in the inspection, daily maintenance and packing of a main parachute for their own use or the use of a parachutist holding an Annual Recency Certificate.

This training for packing of main parachute for own use may begin earlier (during Class A training, as it was previously).

4.3.2 This training will consist of at least 10 repacks correctly completed, under the direct supervision of an APF instructor who holds at least a Packer B rating.

4.4 Spotting

This is about basic physical spotting, using the old-school method of the spotter hanging their head out of the door and guiding the airplane to the spot, without use of GPS. It may be a disappearing art form but remains a minimum requirement.

4.4.1 Minimum Requirements

Minimum requirements for spotting are set out in RS 52, separated into two parts under applicant requirements for Certificate Classes B and D. This staged approach involves:

- no use of GPS as an aid;
- theory (partially covered in the Certificate Class B Training Guide)
  The Cert Class B applicant must be able to demonstrate the ability to determine the correct exit point;
- observation (in flight) of spotting commands and procedures in use;
- the trainee initially giving directions to the trainer, then when more competent, directly to the pilot;
- spotting unassisted.
  The Cert Class D applicant must be able to demonstrate the ability to guide the aircraft to the exit point.

There is a useful training video on Youtube titled Door, Spotting and Climbout.

4.4.2 Other points to consider

Learning to spot unassisted earlier in a jumper's progression (as it was in the past) is recommended by some CIs.

The basics of spotting described above are just one element of the more comprehensive role of the Loadmaster, covered elsewhere in this Manual. Basic training for spotting should however include some understanding of larger loads and the exit order and separation of groups – allowing the first group to exit short of the ideal spot, and the last ones out to be farther upwind of the ideal spot.

4.5 Equipment Conversion Courses

4.5.1 A trainee parachutist will not be permitted to change the type of equipment used for a descent until they have been fully briefed by an instructor with a DZSO endorsement on the use of that equipment.

4.5.2 A trainee parachutist will not be permitted to make a descent on a changed type of equipment without the approval of the DZSO. In assessing whether to allow the descent to be made, the DZSO will consider the trainee's experience, proficiency and past history, the type of gear, the magnitude of the change and any mandated training requirements.

4.5.3 For conversion from Ripcord-Activation to Hand-Deployed Main Parachute Activation:

(a) before being permitted to make a first descent using a hand-deployed pilot chute, the trainee will receive a briefing from an instructor with a DZSO endorsement, on the particular features of the BOC pilot chute system. This will include use of AAD, RSL (and disconnection when relevant), the danger of dislodgement during exit, hard pull, floating bunny tail (if applicable), pilot chute in tow, the use of a "kill line" and the technique for pulling the BOC pilot chute.

(b) before being permitted to make a first jump using a hand-deploy system, the trainee will be able to demonstrate their knowledge of the system and the procedures necessary to make a safe descent using the equipment.

4.6 Class B Skydiver Assessment

4.6.1 Before a novice parachutist applies for a Class B certification, it is recommended that the novice be required to pass a written assessment set by the CI and administered by an instructor with a DZSO endorsement.

4.6.2 The assessment should test the novice's knowledge of APF regulations and theory of parachuting relevant to this level and their ability to make safe and proficient parachute descents.

A sample Class B assessment is provided in the "Certificate Class B Training Guide" for use by CIs.

4.6.3 Any lack of knowledge exposed by the assessment will be corrected before the novice is allowed to apply for the Class B certification.

4.6.4 The CI will certify the Novice as safe and competent to participate in flatfly RW descents involving up to 10 parachutists.

PART 5 – INTERMEDIATE AND ADVANCED TRAINING

Parachutists who have just qualified for their Certificate Class B lack depth of experience due to their limited number of jumps and time in the sport; and yet they have the freedom to pursue various disciplines. To build on the basic skills held, it is very important for their safety and retention that they are provided with further foundation training that extends and refines capabilities and provides for regulatory requirements.

The training and support for their continuing development can be described under three headings:

1. Skills development for all parachutists – Canopy piloting, Loadmaster, DZSO non-training;
2. Specific types of descents or equipment use – Camera, Night jumps, Water jumps, High altitude jumps; and
3. Discipline specific – Freefly, Wingsuit, CRW.

This Part should be read in conjunction with the Operational Regulations, in particular Parts 9 and 11, and the Regulatory Schedules.

5.1 Canopy Piloting

APF highly recommends all parachutists, particularly those transitioning from Class B, attend a basic canopy piloting course: to improve their knowledge and understanding of how to fly parachutes, and build critical practical capabilities to safely progress.

To further assist canopy skills progression, it is highly recommended that a Class C Certificate candidate also complete a Canopy Training course as described in Appendix J.

The APF Canopy Pilot Guide provides theoretical information and describes in-flight manoeuvres which are essential to safe flight. The in-air exercises (covered by the first 2 points below) must be performed above a minimum altitude of 2000 ft. The Guide is not do-it-yourself and the in-air exercises should be coach/instructor-led. The practical course should involve:

- slow-flight and stall practice;
- flight using rear riser, front risers and harness turns;
- improving landings: approach techniques, safety and accuracy, heading changes in the landing surf, crosswind landings;
- canopy downsizing: advice and canopy choice; and
- refresh on two canopies out.

5.2 Star Crest

5.2.1 CIs should ensure that candidates for the Australian Star Crest (RS 52, 6) have received appropriate training which ensures they have the foundation skills to safely and competently participate in RW jumps with more than 10 people.

5.2.2 The APF Star Crest and Bigway Guide provides essential theoretical information on techniques and manoeuvres for safe and successful Star Crest descents and bigways generally. It supplements practical training which should include:

- preparation, briefing and dirt-diving;
- the stages of the skydive, through to safe landing;
- debriefing and planning for skills gap training.

Note: *Training should precede the minimum three qualifying descents.*

5.3 Loadmaster (LM)

5.3.1 CIs should ensure that skydivers acting as Loadmasters in their operations have received appropriate Loadmasters training.

5.3.2 APF recommends candidates for Certificate Class D be trained to act as Loadmasters.

5.3.3 Appropriate training will cover the following regulatory requirements: That a Loadmaster be nominated by the DZSO for every load and that the Loadmaster is responsible for:

(a) conducting a pre-jump briefing before any parachute descents are made, which covers all relevant aspects of the descent, and which includes all persons on board the aircraft including pilot and parachutists;

(b) ensuring the airspace and DZ below is clear of conflicting air traffic and any necessary drop clearances have been obtained; and

(c) confirming the integrity of the exit point.

5.3.4 Where cloud jumping operations are authorised by an approved Cloud Jumping Procedures Manual (CJPM), Loadmasters have additional responsibilities (RS 60). For cloud jumping procedures to be invoked, operations staff on duty must have completed the training required by the approved CJPM.

For Loadmasters, this must include their duties and responsibilities for close cooperation with the DZSO, pilot and Manifest staff regarding who is authorised to be on a load, determination of exit point, pre-flight briefing, spotting and ensuring airspace is clear for the exit.

5.4 DZSO for Non-Training Operations

5.4.1 Under the Operational Regulations, holders of Certificates Class D are eligible to act as DZSO's for a non-training operation. It is therefore important that prior to issue of Class D certification, the candidate receive some training in DZSO responsibilities and their practical application.

The Operational Regulations:

- require all descents be made with the approval of, and under the direct supervision of a Drop Zone Safety Officer (DZSO);
- make each parachutist responsible for the appointment of a DZSO prior to the commencement of operations. This applied equally to training and non-training operations;
- require that the DZSO for descents other than training descents be the holder of at least a Certificate Class D; and
- make the appointed DZSO responsible for ensuring a Ground Control Assistant is appointed and a Loadmaster nominated for each load.

5.4.2 APF recommends candidates for Certificate Class D be trained to act as DZSO of non-training operations.

5.4.3 Appropriate training must cover:

(a) The responsibilities of a DZSO for a non-training operation in accordance with the Regulations and the organisation's polies and procedures, including ensuring that:

(i) all parachuting operations are conducted in accordance with APF regulations;

(ii) all persons involved in parachuting operations are current APF members as required by these regulations;

(iii) operations are conducted in accordance with the organisation's safety management system;

(iv) a GCA is appointed and Loadmasters nominated (and TA if required, but not relevant here);

(v) measures are in place to account for all parachutists after their descents;

(vi) all parachutists are qualified for the descent being undertaken;

(vii) equipment being used complies with Part 7 of the regulations; and

(viii) the aircraft is properly prepared for parachuting operations.

(b) The practical application of these responsibilities to ensure safety and compliance with the Rules and Regulations; and

(c) Ensuring incident and infringement reports are completed and forwards as appropriate.

5.5 Camera Descents

5.5.1 APF regulations specify requirements for camera descents. Before being permitted to make a first camera descent, the trainee will undergo a course of instruction. This instruction will be given to the satisfaction of the DZSO.

5.5.2 In addition to satisfying regulatory requirements for camera descents, the DZSO should ensure the prospective camera jumper understands that jumping with any type of camera adds a significant element of risk to any skydive. The risks include:

- cameras falling off, creating a hazard to persons and property below;
- pilot chute bridles or steering lines entangling with the camera or mount;
- distraction from critical safety issues such as gear checks, climb-out/exit timing, freefall and canopy traffic, and time/altitude awareness.

5.5.3 Skydiver's considering making camera descents should be referred to an experienced current camera jumper, ideally an instructor or coach, for further advice (for example, on equipment suitability and set-up, precautions, procedures).

5.5.4 Skydiver's making camera descents should be reminded of their responsibility to report all incidents.

USPA's "Skydiver's Information Manual" contains a useful section on 'camera flying recommendations'.
See also various useful videos, including Norman Kent's 16 minute production on the danger of wearing cameras available on Youtube titled Dangers of Being a Hero

5.6 Night Descents

5.6.1 Before being permitted to make a first descent at night, the trainee will undergo a course of instruction defined in Appendix K of this manual. This instruction will be given by an Instructor with either a Course Trainer or DZSO endorsement.

5.6.2 Before being permitted to make a night descent, a trainee will have the prerequisites required by the APF regulations.

5.6.3 The training descents will be those defined in the APF Night Jump Training Table. See APF regulations and in Appendix K of this manual.

5.7 Freefly Training

5.7.1 Minimum Requirements

The following matrix summarises qualification required for type of freefly jumps and maximum group size permitted:

Parachutist Qualification or Experience	Type of Freefly Permitted	Number and type of Jumpers participating
Cert Class B or higher	Non-training / fun jumps with DZSO approval	Solo or 2-way
	Head-Up training as per Freefly Training Table Stages 1 & 2 and DZSO approval for those on the jump	2-way or 3-way

Cert Class B or higher completed FF Training Table Stage 1	Head-Down training as per Freefly Training Table Stage 3 only and DZSO approval for those on the jump	2-way with other holding FFC HD and briefed by a FF Coach.
Hold or eligible to hold* FFC HU	Head-Down training as per Freefly Training Table Stages 3 & 4 and DZSO approval for those on the jump	2-way or 3-way and briefed by a FF Coach.
FFC HU	Head-Up non-training / fun jumps	3-way up to 10-way
Hold or eligible to hold* FFC HD	Head-Down non-training / fun jumps	
The applicable FFC (HU/HD) and Star Crest	Non-training / fun jumps HU or HD	10+ ways

* *"eligible to hold" in these cases means CI has verified this by signing-off the candidate as proficient and the Crest application paperwork completed, but that APF Office processing has not yet been completed.*

5.7.2 Basic freefly skills are best learnt in 2-ways. Corking, drifting and wobbly break-offs are quite common and collisions are minimised in a smaller group. Novice freefly jumps should be with a coach focusing on the trainee. Alternatively, two disciplined flyers, ideally with cameras (minimum Certificate Class C holders and helmet-mounted), who have been taught to brief and debrief each other can also achieve quite a lot when combined with feedback by a coach on the ground. With DZSO approval, non-trainees on the jump may fly head-up or head-down depending on their level of experience and Freefly Crest status.

Training Descents

5.7.3 Before being permitted to make a freefly training descent, the trainee will be thoroughly briefed on that descent by a Freefly Coach.

5.7.4 The training descents will be those defined in the APF Freefly Training Table. See Appendix L.

5.7.5 The Freefly Training Table has four stages divided into two parts: Head-Up and Head-Down. The trainee's skill development must abide by the following provisions:

(a) OR 9.2.2 (b) requires that holders of Class B or higher certifications must have DZSO approval to participate in 2-way freefly, or 3-ways where additionally approved by the DZSO for that training jump.

(b) Successful completion of each stage must be signed-off (recorded in the trainee's logbook) by a current freefly coach and DZSO before progressing to the next level.

Head-Up:

(c) On completion of Stage 1 (Head-Up Level 1), the trainee is permitted to:

(i) jump head-up and limited to groups of two (or three with DZSO approval); and

(ii) train Stage 3 (Head-Down Level 1) as described in 5.7.5 (e);

(d) The trainee must be proficient in head-up before being eligible to hold a FFC HU.

Head-Down:

(e) On completion of Stage 1 (Head-Up Level 1), the trainee may participate in Stage 3 (Head-Down Level 1) in groups of two under the direct supervision of the holder of a FFC HD;

(f) On completion of Stage 3 (Head-Down Level 1), the trainee is limited to jump head-up or head-down in groups of two (or three with DZSO approval).

(g) On completion of Stage 4 (Head-Down Level 2), the trainee remains limited to jump head-up or head-down in groups of two (or three with DZSO approval).

5.7.6 On satisfactory completion of Stage 2 for head-up and Stage 4 for head-down, the CI should endorse the trainee's logbook that they are deemed competent and safe for head-up or head-down respectively.

5.7.7 **Freefly Crests – Head-Up and Head-Down**:

The candidate remains restricted:

(a) as in 5.7.5 (d) until the CI has verified that the candidate is eligible to hold an FFC HU;

(b) as in 5.7.5 (g) until the CI has verified that the candidate is eligible to hold an FFC HD; and

(c) has completed an 'APF Crest Award Application' (Form C3) signed by the CI and paid the prescribed fee.

5.8 Wingsuit Training

5.8.1 Before being permitted to undertake a wingsuit training descent, a trainee must have completed the prerequisites listed in the APF regulations.

5.8.2 Before being permitted to undertake a wingsuit training descent, a trainee will be thoroughly briefed on that descent by a Wingsuit Coach.

5.8.3 Wingsuits to be worn by trainees will be approved by the Wingsuit Coach in accordance with manufacturer's guidelines and considering other factors that may affect trainee safety and performance. (See APF website or Wingsuit Training Guide for recommended guidelines.)

5.8.4 The training descents will be those defined in the APF regulations and the Wingsuit Training Table (WSTT) in this manual (see Appendix M).

5.8.5 The WSTT is divided into three parts: A, B and C. Following successful completion of Part A, the trainee must obtain the written and signed approval of a Wingsuit Coach and a CI in order to participate in restricted relative work during wingsuit descents defined in Part B.

5.9 Canopy Relative Work (CRW) Training

5.9.1 Before being permitted to make a first canopy relative work descent, the trainee will be thoroughly briefed by a CI approved person.

5.9.2 Before being permitted to undertake CRW training, a trainee will have completed the prerequisites listed in the APF regulations.

5.9.3 The training descents should be those defined in the APF CRW Training Table (Appendix N). *(For more detail, see the APF CRW Training Guide.)*

5.10 Water Descents

Before being permitted to make a first intentional descent into water, the trainee will undergo a course of instruction. This instruction will be given by an instructor with either a Course Trainer or DZSO endorsement.

5.11 High Altitude Descents

5.11.1 Parachute descents above FL150 (15,000ft AMSL) and below FL180 (18,000ft AMSL) must be in accordance with OR 9.8 and the trainee will undergo a course of instruction approved in advance by the STM. This instruction will be given by at least an Instructor with a Course Trainer endorsement.

5.11.2 The training will include:

- regulatory requirements;
- equipment;
- effects of altitude and treatment;
- hyperventilation and over-breathing; and
- content relevant for each type of participant (e.g. Loadmaster, Pilot, parachutists).

5.12 High Performance Canopy Descents

5.12.1 Before being permitted to make a first high performance canopy descent, the trainee will undergo the course of instruction defined in Appendix O of this manual. This instruction will be given by a HP Canopy Coach.

5.6.2 Before being permitted to make a high performance canopy descent, a trainee will have the prerequisites required by the APF Regulations.

PART 6 – TRAINING FOR OPERATIONAL ROLES AND PROCEDURES

6.1 Briefings

6.1.1 The DZSO or Senior Pilot will ensure that all pilots are fully briefed on:

- aircraft emergency procedures;
- circuit requirements and climb and descent patterns; and
- radio procedures pertaining to parachute operation at the specific location.

6.1.2 The instructor in charge of students in the aircraft, or the parachutist who will be spotting the aircraft will ensure that the parachutists and operations staff are fully conversant with the following:

Parachutists: • Exit height(s); • Exit order; • Number of exits on each jump-run; • Tasks to be performed in freefall and under canopy; • Break-off heights for RW and freefly; • Opening heights; • Aircraft emergency procedures.	**Pilot**: • Exit height(s); • Number of jump-runs; • Number of exits on each jump-run; • Direction of jump-run(s); • Approximate exit point; • Mode of exit; • Planned opening heights of parachutists.
Ground Control Assistant: • How meteorological conditions affect descents; • Wind limitations; • Cloud and visibility limitations	**Target Assistant**: • Students requiring target/canopy control assistance; • Student gear, despatch order and heights.

6.2 Target Assistant (TA) – Training and Assessment

This section is designed to give information to potential TAs and to CIs who wish to certify such people.

The person who acts as TA for student jumps is required to be a full member of the APF, and either an instructor or certified as a TA by a CI.

6.2.1 APF Regulations and Authority

(a) APF regulations (OR 6.1.10) define the requirement and forbid unqualified people acting as a TA. Before being permitted to act as a TA during student training descents, a person who is not the holder of an instructor rating must complete a course of instruction and an assessment set by the CI and be assessed as competent.

(b) The authority to act as a TA for student training descents will be written into the holder's log book and signed by the CI.

(c) The TA acts under the direct supervision of the DZSO.

6.2.2 Role of the TA

The student parachutist is taught to land their canopy themselves on the first jump. However, the TA provides canopy control assistance and additional guidance using ground-to-air communications, including radio and visual communication systems, to facilitate safe landing in a target area. The TA also provides feedback on student performance.

Typically, TAs work as part of a team under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their outputs. All activities are carried out in accordance with relevant organisational policies and procedures.

6.2.3 Training Syllabus

Prerequisites to acting as a TA are an understanding of the regulations that affect the role and the ability to collect and interpret weather and environmental information in order to forecast and assess their impact on parachuting activities.

The following three behavioural points summarise (before-during-after) training objectives for a TA candidate, with each followed by sub points that describe standards for achieving the TA's training objectives.

1. Prepare for canopy control assistance session:
    - 1.1 Confirm appointment by CI or DZSO and communicate appointment to relevant instructors and students.
    - 1.2 Access relevant sources to interpret weather and environmental information.
    - 1.3 Identify potential hazards and risk factors.
    - 1.4 Prepare ground-to-air communication equipment for use and report faults.
    - 1.5 Attend briefing by relevant personnel prior to participants boarding aircraft for the planned descents, confirming requirements for the load.
    - 1.6 Establish canopy flight plan and landing direction in accordance with regulatory requirements, organisational policies and procedures, load requirements and environmental conditions.
2. Direct canopy control:
    - 2.1 Safely operate communications systems and equipment using authorised radio procedure or alternative communication strategies.
    - 2.2 Manage communication faults and deficiencies.
    - 2.3 Communicate directions to student under canopy for following or adjusting flight plan.
    - 2.4 Maintain situational awareness by observing aerial activity of student, others under canopy and landing locations whilst monitoring weather and ground conditions.
    - 2.5 Take appropriate action to assist the student to maintain safe flight and landing.
3. Complete post canopy control assistance responsibilities:
    - 3.1 Provide feedback on canopy control.
    - 3.2 Retrieve and store equipment in accordance with organisational policies and procedures.
    - 3.3 Give and receive feedback on own performance to identify potential areas of improvement for future canopy control assistance sessions.

Further information is available in Archie Jamieson's thesis: "Meteorology for Skydivers" which is available on the APF website under Publications.

6.2.4 TA Responsibilities and Duties

The duties of the TA should be described in the Group Member's policies and standard operating procedures. TA training and duties should be based on the above and include:

- Awareness of wind conditions at various levels. This can be ascertained by observing the speed of the aircraft on jump run, from the drift of the wind drift indicator, and from the performance of canopies.
- Familiarity with the performance of different student canopies for students of different weights.
- A flight plan consistent with the student's briefing by their instructor and based on environmental conditions – one that avoids turning the student away from the TA below 1,000ft and guides them away from hazardous areas and to a safe landing site downwind of the target but facing upwind.
- From the target area, identification of the student's canopy in order to guide the student to the desired landing area.
- Allowance for varying reaction times to the TA's directions.
- If radios are being used, being prepared to quickly fall back to an alternative form of communication should the student fail to respond to a direction.

Unless well practiced, a TA should not try to land a student too close since a small misjudgement will then allow the student to fly over the TA. Shouted commands at this point are often ineffectual since the student's ears are often blocked due to the pressure change.

- During finals, maintaining a height reference to the student. Keeping the student's feet AND the horizon in the TA's frame of vision will allow better judgement of the flare timing.
- Communication to the student to flare the canopy at the appropriate time, making allowance for canopy type, wind conditions, student's weight, sharpness of student's reaction time. It is usually better to give the flare signal slightly earlier than the ideal to allow for slow reactions.

Many students are reported as having taken their eyes off the TA during final approach to look at the ground and consequently flare late. Communicating small movements will tend to keep the student focussed on the TA's signals and requests.

- Assistance and advice to the student after landing on care of their equipment.
- Reporting the student's canopy control and landing performance to DZSO or appropriate instructor.
- Reporting any incidents and injuries to the DZSO.

6.2.5 TA Assessment and Authorisation

The candidate must:

(a) Pass a written assessment covering the above areas. The CI may alter or augment this assessment to suit the needs of their particular training organisation.

A sample TA assessment is provided in Appendix P of this manual.

(b) Be authorised by the CI as competent to act as TA. When satisfied of the candidate's performance in both the written assessment and practical tests, the CI should endorse the candidate's assessment and their logbook.

This authorisation is handled entirely at the drop zone level. There is no requirement for application to the APF Office, nor for application fees, nor for the assessment to be returned to the APF office.

6.3 Ground Control Assistant (GCA) – Training and Assessment

6.3.1 GCA Role

The role of the GCA is to communicate ground control information to pilots and loadmasters during skydiving and parachuting operations or displays, including the operation of a mobile aeronautical radios on an aviation frequency. This involves assisting the DZSO or Display Organiser with "safe to drop" signalling and advice on the advisability of exiting the aircraft, using aviation English and protocols.

6.3.2 Nomination of a GCA under APF and CASA Regulations and Authority

(a) A GCA must be nominated by the DZSO for every load, or for display jumps nominated by the Display Organiser. The person who acts as GCA must be a member of the APF and for student jumps, is required to be certified as a GCA by a CI.

(b) Before being nominated to act as a GCA during parachute descents, the candidate must:

(i) complete a course of instruction in the use of a mobile aviation radiocommunication system and the responsibilities and duties of the GCA; and

(ii) successfully complete an assessment approved by the STM and set by the CI.

(c) The authority to act as a GCA for parachute descents will be recorded in:

(i) a register maintained and signed by the CI; and/or

(ii) for parachuting displays, a register maintained and signed by the DO.

6.3.3 Training Syllabus

(a) The CI will ensure the GCA candidate is a member of the APF.
Note: *This includes full, short-term or student membership. Pilot and associate membership do not apply*

(b) The candidate requires the following essential skills and knowledge for the GCA role:

- Key provisions of the relevant Rules and Regulations.
- The mobile aeronautical radio frequency allocated for parachuting group member operations, and the properties of radio waves and factors that can affect radio wave propagation;

- Operation and purpose of the controls installed on a mobile aeronautical radio, including procedures for preparation for use, fault testing and reporting;
- Understanding of common industry terminology, including call signs and why standard phraseology is used in communications using an aeronautical radio;
- Potential hazards and risks associated with parachuting and ground control to enable prompt detection and control;
- Weather information and its implications for parachuting and skydiving operations;
- Range of communication equipment and accessories available for ground control;
- Principles of teamwork and roles and responsibility of team members in drop zone safety management processes; and
- Procedures for dealing with various incidents, including off-drop zone landings, canopy malfunctions, landing injuries and the Dropzone Emergency Response Plan.
- Problem-solving skills to:
  - Identify problems related to ground control operations;
  - Implement contingencies in response to non-routine situations;
- Literacy and language skills to read and interpret written or verbal instructions, procedures and weather information; and
- Aviation English language proficiency relevant to operation of low output mobile radio equipment for ground control.

(c) Summary of training objectives for GCA

The following four behavioural points summarise (before-during-after) training objectives for a GCA candidate, with each followed by sub points that describe standards for achieving the GCA's training objectives.

1. Prepare for ground control assistance session:
   - 1.1 Confirm appointment by DZSO or Display Organiser and communicate appointment to manifest staff, pilots and loadmasters.
   - 1.2 Access relevant sources to interpret weather and environmental information.
   - 1.3 Identify potential hazards and risk factors.
   - 1.4 Inform pilots and loadmasters of known and anticipated hazards and discuss acceptable alternatives
   - 1.5 Confirm details of each load, landing direction(s) and range of conditions suitable for parachute descents with pilots and loadmasters.
   - 1.6 Prepare ground-to-air communication equipment for use and report faults.
2. Operate ground-based aeronautical radio:
   - 2.1 Identify components and confirm serviceability of aeronautical radio equipment.
   - 2.2 Determine and select correct frequency used for communications.
   - 2.3 Transmit and receive radio communication using required phraseology and in accordance with authorised radio telephone procedure, regulatory requirements and organisational policies and procedures.
   - 2.4 Maintain a listening watch and respond to applicable transmissions.
   - 2.5 Respond to emergency and urgency transmissions in accordance with procedures published in Aeronautical Information Publication.
   - 2.6 Perform radio failure procedures.
   - 2.7 Employ fault finding procedures and apply corrective actions.
3. Monitor weather, aerial activity and ground conditions:
   - 3.1 Monitor the environment for changes in conditions.
   - 3.2 Observe opening points and landing locations for consistency.

3.3 Update information provided to operations personnel where conditions change and take appropriate action.

4. Complete post ground control assistance responsibilities:

4.1 Retrieve, shut down, inspect, service, repair and store equipment and report faults.

4.2 Give and receive feedback on own performance to identify potential areas of improvement for future ground control assistance sessions.

Where advantageous, the CI may use the Senior Pilot or other JPA pilot to assist in GCA training and assessment of the aviation radio related elements.

6.3.4 GCA Assessment and Authorisation

(a) The candidate must pass a written and practical assessment covering the skills, knowledge and training specified in 6.3.3. The CI may augment this assessment to suit the needs of their particular training organisation.

A sample GCA assessment is provided in Appendix Q of this Manual.

(b) When satisfied of the candidate's performance in both the written assessment and practical tests, the CI will confirm competency by:

(i) authorising the candidate on behalf of the STM, to transmit ground-to-air communications to pilots in command of jump aircraft using aviation protocol;

(ii) authorising the candidate to act as GCA for their dropzone's operations; and

(iii) endorsing both the candidate's assessment and where applicable, their logbook.

This authorisation is handled entirely at the dropzone level. Except for membership of the APF, there is no requirement for application to the APF Office, nor for application fees, nor for the assessment to be returned to the APF Office.

(c) Where a GCA is to be nominated by a DO for a parachuting display, the DO must:

(i) confirm the GCA has been trained and assessed by a CI in accordance with this Manual;

(ii) ensure the GCA is instructed in organisation-specific and DZ-specific rules, standard operating procedures, equipment, work instructions and local knowledge; and

(iii) confirm competence of the GCA to act on the parachuting display.

6.4 Coaches

6.4.1 Coach training for initial appointment by a CI must cover the following topics:

(a) The role and responsibilities of the coach:

(i) within the APF framework; and

(ii) within the training organisation they will be appointed to work within;

(b) Parachuting equipment to suit the purpose and pre-jump equipment checks;

(c) Preparing for a coaching jump, briefing and dirt-diving;

(d) The applicable freefall and/or canopy pilot tasks (e.g. requirements and/or exercises outlined in the Training Tables and/or APF Guides);

(e) General safety, DZ and trainee management – manifest procedures, in the aircraft, under canopy and landing;

(f) Record keeping – Logbook entry (self and trainee), incident notification;

(g) The training organisation's Training Operations Manual (TOM) and the Training Table(s) relevant to coaching discipline(s);

(h) Discipline-specific practical methodologies.

6.4.2 Coach training for appointment by a second or subsequent Chief Instructor must cover organisation-specific and DZ-specific rules, standard operating procedures, equipment, work instructions and local knowledge.

6.4.3 Coach candidates must be assessed using written and practical components, supplemented by oral confirmation. The practical assessment may involve any number of evaluation descents with the minimum requirements being:

(a) The candidate's preparation for coaching jumps, including checking of equipment, briefing and dirt-diving;

(b) Conducting the jump(s) and in-flight manoeuvres;

(c) Post-jump activities – reviewing performance, the debrief and log entries; and

(d) Other safety aspects and standard operating procedures for the operation/DZ.

RS 53, 8 covers Coach Appointments and 8.3 lists who can assess.

APPENDICES

Appendix A: Student Equipment Main Deployment Procedures

Main Deployment Procedure example – Chest ripcord with spring loaded pilot chute

LOOK	for the ripcord
REACH	Continue to look, and place right thumb through ripcord. Left hand moves to a symmetrical and balancing position.
GRIP	Close a fist around the ripcord
PULL	the ripcord away from the bendex housing to arm's length, and
ARCH	for stability during opening sequence

Main Deployment Procedure example – Hip ripcord with spring loaded pilot chute

LOCATE	Ripcord, using an open hand Left hand moves to a symmetrical and balancing position.
GRIP	Close a fist around the ripcord
PULL	the ripcord away from the bendex housing to arm's length, and
ARCH	for stability during opening sequence

Main Deployment Procedure example – Bottom of Container Throwaway Pilot Chute

LOCATE	Main deployment handle using an open hand; back of hand towards ground
GRIP	the handle, making sure of it
THROW	the pilot chute to your right as far as you can, still with the back of your hand towards the ground.
ARCH	for stability during opening sequence

Appendix B: Student Equipment Emergency Procedures

Emergency Procedures example - Single Operation System (SOS)

LEGS	Legs back and pushing our hips forward when the cutaway handle is pulled we will naturally fall back into a "belly to earth" attitude.
LOOK	Look at the yellow cutaway handle.
REACH	Right thumb through handle - left hand locked over right assist.
PUNCH	Punch down and out with the right hand pulling the reserve handle to full arm's length.
ARCH	for stability during opening sequence
CLEAR	Look at the reserve cable housing. Use left hand to clear cables completely from housing. Check that the red handle has gone.

Emergency Procedures example – Dual Operation System (DOS) or Two Action System (TAS)

LEGS	Bring your legs back for symmetry as you move your hands in the following procedures so as you remain belly to earth (and arch your back)
LOOK	for cutaway handle
LOCATE	your right hand on the cutaway handle
LOOK	for reserve ripcord
LOCATE	reserve ripcord, placing a thumb through it and taking a grip
PEEL	the cutaway away from the Velcro with an upward twisting motion
PUNCH	cutaway pad, aim for your feet, to full arm extension
PEEL	the reserve ripcord away from the velcro
PUNCH	reserve ripcord, aim for your feet to full arm extension
ARCH	arms wide, hands still gripping cutaway and reserve cables.

Appendix C: Pre First Jump Assessment

Student's Name: . . . . . Date: . . . . . .

Course Instructor: . . . . . .

Prior to Emplaning:

1. If you have any questions about your jump, who do you ask?
   a) Your instructor
   b) An experienced skydiver
   c) A pilot
   d) Another student

2. A logbook is necessary because it records:
   a) when you last consumed alcohol
   b) your on-going performance and progression
   c) length of time spent in the classroom
   d) drop zone opening hours

3. What are the alcohol/drug restrictions for skydiving?
   a) Required to walk in a straight line to the aircraft
   b) No alcohol 24 hours before skydiving
   c) No alcohol/drugs measurable if participating in any skydiving operations
   d) 8 hour restriction before skydiving

4. From which direction should you approach an aircraft?
   a) The rear
   b) The rear if the propeller is spinning
   c) The front
   d) Any direction if being careful

5. What is the final check to be performed by your instructor prior to boarding the aircraft?
   a) All handles and pins are in place, Altimeter correctly adjusted and AAD is turned on
   b) The pilot is correctly licenced
   c) The colour of your parachute
   d) Both A and B

6. How do you put your life jacket on? (Coastal locations only)
   a) Remove from pouch, place over head, pull red tab, inflate with tube if required
   b) Remove from container, pull red tab, place over head, inflate with tube if required
   c) Remove from container, inflate with tube, place over head
   d) Remove from container, place over head, inflate with tube, pull tab if required

The Ride to Height:

7. Why is it important to remain still in the aircraft?
   a) To make sure everyone is comfortable
   b) So pilot isn't distracted
   c) So the Instructors can get some rest
   d) To ensure that no handles or pins can be dislodged.

8. In the event of an aircraft emergency, who will you take instruction from and what will you do?
   a) Take and follow instructions from loudest parachutist on-board
   b) Take and follow instructions from the parachutist nearest the door
   c) Take and follow instructions from my Instructor, and the pilot
   d) Decide for myself what to do.

9. If a parachute container opens inside the aircraft, what must you do?
   a) Yell loudly "Parachute open!"
   b) Open the door
   c) Both a) and b)
   d) Try to smother and contain it and let Instructor know

10. If your parachute begins to escape out of the door of the aircraft, what must you do?
   a) Yell loudly
   b) Nothing
   c) Grab onto your Instructor
   d) Follow it

Exit:

11. What are the important points to remember during the climb-out?
   a) Protect your handles
   b) Follow your Instructors directions
   c) Ensure you have eye contact with your Instructors when communicating
   d) All of the above

12. Describe your body position as you exit the aircraft:

   head . . . . . .

   arms . . . . . .

   legs . . . . . .

   body . . . . . .

13. Why is a good body position prior to canopy opening so important?
   a) To look good for the video
   b) To make the Instructors job easy
   c) To make it easy to see and find the landing area
   d) To give the parachute the best platform to launch from

Solo Freefall – Static-Line (SFF-SLD) ONLY:

14. What do you do if you experience a static-line hang-up?
   a) Free it immediately
   b) Activate your reserve immediately
   c) Advise the instructor
   d) Hands on head, do not activate your reserve until you are cut free.

Accelerated Freefall (AFF) ONLY:

15. What does it mean if your jumpmaster(s) shake you after exit?
    a) Arch harder
    b) Look for the landing area
    c) Read my altimeter
    d) Look for video person

16. What do you do if you have NO jumpmasters at your side after exit?
    a) Arch and deploy your main parachute without hesitation
    b) Look where the Instructors might be
    c) Check altimeter
    d) Arch harder.

17. If a jumpmaster shows you a FIST in freefall, what do you do?
    a) Tongue poke your Instructors
    b) Arch and deploy your main parachute without hesitation
    c) Check your altimeter
    d) Arch harder

18. How long does it take to freefall:
    a) the first 1,000 ft? . . . . . . seconds, b) the next 1,000 ft? . . . . . seconds

19. Why is the awareness check at 5,500 ft so important?
    a) It signals to the camera person that you are having fun
    b) It isn't important
    c) It tells your instructors that you are enjoying yourself
    d) It tells the Instructors that you are aware of your height

20. At what height on your first jump do you commence your main parachute deployment procedure?

    . . . . . ft

21. If you reach for your main parachute deployment handle, but cannot locate it, what must you do?
    a) Just keep trying
    b) Wait for your Instructor to assist you
    c) Tongue poke to the right
    d) Try once more, commence emergency procedures

Parachute Opening:

22. Why do you count “one thousand… (etc)” after deploying your main parachute *(or after exit for SFF)*?
    a) To give you something to do
    b) So that your Instructors can hear you
    c) To remain time aware
    d) To reduce nervousness

23. You have counted to “six-thousand” as trained and felt no opening shock. What do you do?
    a) Commence Emergency Procedures
    b) Assess the situation carefully
    c) Release the brakes
    d) Two full flares

24. You feel opening shock on your main canopy. What do you do next?
    a) Relax and enjoy the view
    b) Commence canopy checks
    c) Commence emergency procedures
    d) Release the brakes

25. What are you checking for to ensure you have a good canopy?
    a) Square, Symmetrical, End Cells Open, Slider Down
    b) Nice shape and colour
    c) Rectangular, End Cells Open, Slider Up, Line Twists
    d) Size, Shape, Flying straight, Slider down, No twists

26. What do you do if you feel opening shock and look up to see a tangled canopy less than 50% of its full size?
    a) Wait a while, it might not be serious
    b) Try twice to resolve issues myself
    c) Wait for instructions
    d) Commence Emergency Procedures

27. Complete the description of the key words for your emergency procedures:

    Legs . . . . . Look . . . . . Locate . . . . . .

    Look . . . . . Locate . . . . . Peel . . . . . .

    Punch . . . . . Peel . . . . . Punch . . . . . .

    Arch . . . . . .

28. What is the minimum safe height to begin your Emergency procedures? . . . . . feet

29. How do you steer and land your reserve canopy?
    a) As per the instructions over the radio
    b) I can’t steer this canopy
    c) The same as my main parachute
    d) Carefully

30. If your canopy has line twists, what action could make the situation worse?
    a) Try to get slider down
    b) Try to open End Cells
    c) Release the brakes
    d) Kick out of the Line Twists

31. In the event of having two canopies out and they are flying erratically, what would your actions be?
    a) Wait for the TA's instructions
    b) Take no action, these canopies will naturally steer apart
    c) If in any doubt about controllability, cutaway your main parachute
    d) The landing will be soft as you will have 2 parachutes

32. Where are your steering toggles located?
    a) On the shoulders
    b) Above my head, on the rear of the rear risers
    c) On the front of the suspension lines
    d) Either a) or b)

33. How do you release the steering toggles?
    a) One at a time
    b) Peel both off the Velcro, then 2 flares smoothly
    c) Pull down as you approach landing
    d) Pull sideways

34. After you have checked your canopy and you have released the steering toggles, what do you do next?
    a) Enjoy the scenery
    b) Feel proud of what I have just done
    c) Look and locate the Target, beware of other skydivers
    d) Look for the cameraman

Under Canopy:

35. How do you stall your main canopy?
    a) Slowly pull both toggles down past the flare point
    b) Suddenly release both toggles
    c) Slowly pull both toggles down to the chest area
    d) a) followed by b)

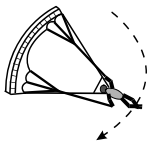
36. When you are at height, how do you control your recovery from a stall?
    a) Smoothly lift one toggle at a time
    b) Quickly return both toggles to full drive
    c) Look and locate the target then assess the recovery
    d) Smoothly lift the toggles back to the half way, then back to full drive

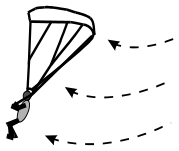
37. If you cannot see or hear the Target Assistant, how will you determine which direction the wind is blowing on the ground?
    a) Look at the clouds above you
    b) If no indicators land in a slow and gentle turn
    c) Look around for smoke, flags, water ripples or grass ripples to help determine wind direction
    d) Either a) or b)

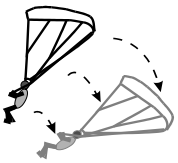
38. On final approach for landing, you are flying towards a landing hazard. What will you do about it?
    a) Continue as normal
    b) Gently turn away and avoid if safe to do so
    c) Initiate a sharp turn to avoid it
    d) The Target Assistant should solve this

Landing:

39. What happens to the "rate of descent" of your canopy in the following situations? Will it increase or decrease?





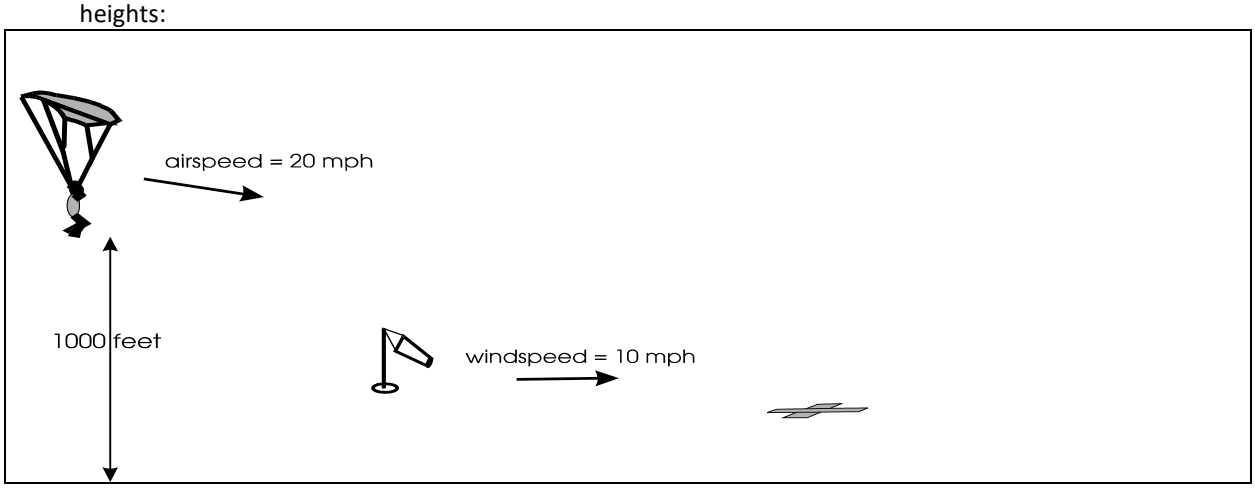


40. During a turn:
    a) Increase b) Decrease

41. During a flare:
    a) Increase b) Decrease

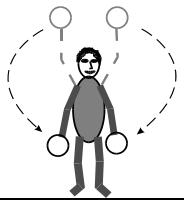
42. During a stall:
    a) Increase b) Decrease

43. In the space below, draw the landing pattern you would fly to land near the target. Show any turning heights:



44. Why should you face into wind for landing?
    a) So you have more groundspeed for landing
    b) So you have more airspeed for landing
    c) So you have less airspeed for landing
    d) So you can minimise your groundspeed for landing

45. What do the following signals by the Target Assistant mean:

			
Answer:	Answer:	Answer:	Answer: .....

46. What position should your hands and toggles be as you approach landing and **before** you flare?
    a) Fully down
    b) Eye level
    c) Chest level
    d) Fully up, at full drive

47. At what height above the ground do you start to flare your canopy?
    a) 1,000ft
    b) 100ft
    c) When I think it's about right
    d) Approximately 6ft to 10ft (2m to 3m) as directed by the Target Assistant

48. You have flared your canopy to land but you find you have flared too early and the parachute begins to stall while you are still (30 ft/10m) above the ground. Describe your reactions:
    a) Let go of the toggles gently and push your legs forward
    b) Bring both toggles up slowly to about your waist and PLR
    c) Continue the flare
    d) Pump the toggles quickly

49. You cannot see or hear the Target Assistant, how will you land the canopy on your own?
    a) Flare when I think it's about right
    b) Close to the runway
    c) Try to face into wind, 1/2 brakes and PLR
    d) Downwind so I have as much speed as possible

50. Describe your body position when you think you are going to have a hard or awkward landing:
    a) Feet and knees together, chin up and back straight
    b) Chin on chest, feet and knees apart, back bent
    c) Back bent, chin up, feet and knees spread, toes down
    d) Chin on chest, back curved, feet and knees together, toes up

51. You have landed, but your canopy has reinflated and you are being dragged. What is the first thing to do?
    a) Wait for the Target Assistance to help
    b) Fully pull in one steering toggle
    c) Roll onto your front and slide with the wind
    d) Pull Cutaway handle (the red one)

Finally:

52. Do you feel you are ready to participate in your first jump? . . . . . .

53. Do you feel able to land your canopy unassisted if necessary? . . . . . .

54. Do you want any more training on any subject(s)? . . . . . .

Please read and initial the following statements: Initials

- I am a member of the Australian Parachute Federation and have read, understood and accepted a waiver including a warning, exclusion of liability and release and indemnity. . . . .
- I have voluntarily attended a course of parachuting instruction and understand and agree that it is my responsibility to bring to the instructor's attention anything that I have not fully understood in the course of this instruction prior to making a parachute jump. . . . .
- I confirm that I have no physical or mental limitations which I should inform my instructor(s) of prior to jumping. . . . .
- I am satisfied with the training I have received and feel fully prepared to make solo parachute descents. . . . .
- I have read and understood all course notes provided to me during this training. . . . .
- I am responsible for ensuring that my main parachute is deployed. . . . .
- I am responsible for initiating emergency procedures in the event of a parachute malfunction. . . . .
- I am responsible for landing my parachute unassisted. . . . .
- I am responsible for avoiding collisions with other parachutes during descent. . . . .
- I am responsible for recognising and avoiding landing hazards such as water, buildings, trees, power lines, fences, roads, runways, railway lines, vehicles, aircraft, etc. . . . .
- Weather conditions may change at any time without warning. I accept full liability for any accident or injury that may result from changing weather conditions. . . . .
- If I consider that I require any further training to undertake a solo parachute descent I should inform the appropriate people and not perform a solo parachute descent. . . . .

Student's signature: . . . .

Assessed by: . . . . *Satisfactory* *Not yet satisfactory*
(Circle one)

Retraining given in: . . . .

. . . .
Student's signature

. . . .
Instructor's signature

Student's Name: . . . . Date: . . . .

Course Instructor: . . . .

Appendix D: SFF Training Table (SLD/IAD)

The SFF Training Table shows the competencies required of a student irrespective of how the main canopy is deployed on the initial jumps, i.e. either static-line deployment (SLD) or instructor-assisted deployment (IAD).

CIs may choose the most appropriate deployment method depending on the needs of their DZ and students, provided the instructor has the appropriate APF endorsement for that deployment method.

Stage 1: Stable solo SLD/IAD descents and Practice Pulls

1 (a) *(Jumps 1 & 2)*

Two stable SLD or IAD descents

Prerequisites:

- First jump course

Aims:

- Exit the aircraft stable
- Maintain stability throughout the opening of the parachute.
- Perform canopy checks
- Follow canopy flight plan with TA assistance
- Prepared to perform a PLR.

Minimum requirements:

- Despatch for first descent from a minimum 3,500 ft
- Despatch for second descent from a minimum 3,000 ft
- Stable body position (arch)
- Prepare canopy flight plan for prevailing wind conditions.
- Altitude awareness under canopy
- Follow the flight plan with TA assistance.
- PLR after flare if required.

1 (b) *(Jumps 3 to 5)*

Three stable SLD or IAD descents with Practice Pull (PP)

Prerequisites:

- Two stable SLD or IAD descents.
- Understand and be able to demonstrate the physical movements required to make the Practice Pull, and will understand the necessity to locate the handle/pilot-chute.

Aims:

- Perform a Practice Pull while remaining stable.
- Perform canopy checks
- If necessary, follow canopy flight plan with TA assistance and prepared to perform a PLR.

Minimum requirements:

- Despatch from a minimum 3,000 ft
- Stable body position (arch).
- An effective practice pull.
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted by TA (unless required)
- Flare unassisted by TA (unless required).

Once the trainee has successfully completed the initial stages of this SFF Training Table, CIs may choose to incorporate minimum manoeuvres described in the Class A Canopy Handling Training Table (Appendix G). The DZSO will consider the trainee's experience, proficiency and past history, the type of canopy, weather conditions and any other risk factors before allowing the additional canopy handling manoeuvres to be added into a particular SFF stage.

Stage 2: A stable 5-second freefall (first freefall)

(Jump 6)

Prerequisites:

- Stability during aircraft exit throughout the opening of the parachute, while performing two consecutive PP's, one being within 48 hours of this first freefall.
- DZSO satisfied that the student is competent to make the descent safely.
- Authorisation by the DZSO for the student to make a first freefall descent (log book entry).
- Understanding:
  - Any differences in the time or speed of opening of the parachute
  - The counting procedure required for the descent
  - The procedures for a hard pull or floating ripcord / lost handle or pilot-chute
  - Malfunction procedures and the necessity to discard the ripcord
  - Revised procedures with regard to emergency exits.
- Canopy circuit awareness
- Follow canopy flight plan

Aims:

- Perform a safe, stable and competent 5-second delay freefall descent.

Minimum requirements:

- Exit from a minimum 3,200 ft
- Control of a stable body position.
- Effective pull on a 5-second delay (within 25% of the stipulated time, i.e. 4 to 6 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted by TA
- Flare unassisted.

Stage 3: A stable 5-second freefall descent on heading

(Jump 7)

Prerequisites:

- Stability during aircraft exit, pull and throughout the opening of the parachute.
- Understanding the reason for maintaining a heading and the means of doing so.
- Understanding the count required for the descent.

Aims:

- Consolidation of the previous stage.
- Remain on heading during a safe, stable and competent 5-second freefall descent.
- Canopy circuit awareness
- Follow canopy flight plan

Minimum requirements:

- Exit from a minimum 3,200 ft
- Heading and stability maintained throughout the freefall and opening parts of the descent.
- Effective pull on a 5-second delay (within 25% of the stipulated time, i.e. 4 to 6 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted by TA
- Flare unassisted.

Stage 4: A stable 10-second freefall descent on heading

(Jump 8)

Prerequisites:

- Stability during aircraft exit, pull and throughout the opening of the parachute.
- Understanding the reason for maintaining a heading and the means of doing so.
- Understanding the count required for the descent.

Aims:

- Consolidation of previous two stages.
- Remain on heading during a safe, stable and competent 10-second freefall descent
- Initiate opening procedures after the correct time in freefall.

Minimum requirements:

- Exit from a minimum 4,200 ft
- Heading and stability maintained throughout the freefall and opening parts of the descent.
- Effective pull on a 10-second delay (within 25% of the stipulated time, i.e. 8 to 12 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 5: A stable 12-second freefall descent learning instruments

(Jump 9)

Prerequisites:

- Stability during aircraft exit, pull and throughout the opening of the parachute.
- Fully understand the use of the altimeter, the techniques required to read it, and the procedures to be taken if the altimeter cannot be read.
- Understand that until they are fully competent in the use of the altimeter, they must continue to count in freefall, and to pull the ripcord or throw-away pilot-chute when the altimeter indicates pull height or the count is complete, whichever is sooner.

Aims:

- Consolidation of previous stage with fall rate approaching terminal flatfly velocity.
- Remain on heading during a safe, stable and competent 12-second freefall descent
- Use the altimeter to determine the nominated altitude to initiate opening procedures or to initiate opening procedures after the correct time in freefall.

Minimum requirements:

- Exit from a minimum 4,400 ft
- Consistently demonstrate the ability to read the altimeter in freefall, opening at the nominated height, and maintaining stability and heading throughout the freefall
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 6: Stable 15-second freefall descents using delta or relaxed arch positions

6 (a)
(Jump 10)

A stable 15-second freefall using delta position

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the delta position and how to achieve it.
- Understand the basic aerodynamics of the human body in this position, that it is a head-low position and its use for recovery from instability or uncontrollable spins.

Aims:

- Demonstrate the ability to adopt and hold the delta position in freefall and return to the arch without loss of stability, heading or height awareness.

Minimum requirements:

- Exit from a minimum 5,000 ft
- Transition from stable arch to a held delta position and return to arch.
- No loss of stability, heading or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

6 (b)
(Jump 11)

A stable 15-second freefall using relaxed arch position

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the relaxed arch position, how to achieve it and its use.

Aims:

- Demonstrate the ability to fly in a relaxed arch position without loss of stability, heading or height awareness.

Minimum requirements:

- Exit from a minimum 5,000 ft
- Fly in a relaxed arch position
- No loss of stability, heading or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 7: Stable 20-second freefall descents, with left and right turns, and then a backloop

7 (a)
(Jump 12)

A stable 20-second freefall with a left and right turns

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the technique for turning and stopping on heading.

Aims:

- Learn/Improve control of the body through the horizontal plane.
- Demonstrate the ability to initiate a flat turn in freefall, maintain it through 360 degrees and stop it on heading, without loss of stability or height awareness.
- Repeat the manoeuvre in the opposite direction.

Minimum requirements:

- Exit from a minimum 6,000 ft
- From heading, initiate left and right turns through approximately 360 degrees.
- Stop each turn within 45 degrees of the original heading.
- No loss of stability, heading or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

7 (b)
(Jump 13)

A stable 20-second freefall with backloop

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the technique for performing a backloop.

Aims:

- Learn/Improve control of the body through the vertical plane.
- Demonstrate the ability to perform a backloop in freefall without losing stability or height awareness.
- Repeat the manoeuvre.

Minimum requirements:

- Exit from a minimum 6,000 ft
- Backloop
- No loss of stability or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 8: A stable 25-second freefall descent with a figure-eight turn and backloop

(Jump 14)

Prerequisites:

- Demonstrated on the previous stage, satisfactorily turning and stopping on heading and performing a backloop.

Aims:

- Consolidation of previous stages, for control of the body through the horizontal and vertical planes.
- Demonstrate the ability to fly smooth figure-eight turns (left through 360 degrees and right through 360 degrees) stopping on original heading, followed by smooth backloops.

Minimum requirements:

- Exit from a minimum 6,500 ft
- Figure-eight turns stopped within 20 degrees of the original heading.
- Backloop(s) demonstrate control in the vertical plane.
- No loss of stability or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 9: Stable 30-second freefall descents using track and track with S-turn, followed by a descent with an instructor evaluating air-skills

9 (a)
(Jump 15)

A stable 30-second freefall using track

Note: Instructor may accompany the student on this descent.

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the body position for a track and how to achieve it.
- Understand the basic aerodynamics of the human body in the track position and the need to provide safe separation following relative work break-off.
- Understand and be able to demonstrate (on the ground or in a simulated environment) a flare, look above (clear) and wave-off prior to initiating opening, and the purpose of these manoeuvres.

Aims:

- Demonstrate the ability to initiate and maintain horizontal movement in freefall using the track body position, without loss of heading, stability or height awareness.
- Demonstrate ability to flare and wave prior to opening.

Minimum requirements:

- Exit from a minimum 7,500 ft
- Track on heading.
- Flare, wave and pull.
- No loss of stability, heading or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

9 (b)
(Jump 16)

A stable 30-second freefall descent using track with S-turn

Note: Instructor may accompany the student on this descent.

Prerequisites:

- Demonstrated a straight track.
- Understand and be able to demonstrate (on the ground or in a simulated environment) the technique required to perform an S-turn during a track.

Aims:

- Consolidation of previous descent, tracking, flare, wave and pull.
- Demonstrate the ability to make large changes in the direction of a track, both to the left and to the right, without loss of stability or height awareness.

Minimum requirements:

- Exit from a minimum 7,500 ft
- Turn left and right during tracking.
- Flare, wave and pull.
- No loss of stability or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

9 (c)
(Jump 17)

A freefall descent with an instructor to evaluate air-skills

Notes: This descent will be the student's first RW jump. Exit may be linked or unlinked.

Prerequisites:

- Satisfactorily completed all previous stages and descents in this training table.

Aims:

- Demonstrate the ability to remain relative to the instructor, initiate breakoff, turn and track without loss of stability or height awareness.
- Evaluation of arm and leg awareness, fast and slow fall, body position and hover control.
- May also be to consolidate previous learning or to improve areas of weakness.

Minimum requirements:

- Exit from a minimum 9,000 ft
- Use of body position, arms and legs and fast and slow fall to remain relative.
- Breakoff initiated with a turn and track.
- Flare, wave and pull.
- No loss of stability or height awareness
- Collapse slider (if student gear has a collapsible slider).
- Fly circuit and flare unassisted.

***Note**: Once student parachutists have successfully completed Stage 9 of a Student Training Table, they may be approved to commence flatfly RW descents but only with an instructor. Once they've attained their Certificate A, they may be approved to jump with a Cert. B Coach. See OR 14.4 for conditions and the matrix in 4.14 for a summary guide to these requirements.*

Appendix E: Accelerated Freefall Training Table

Stage 1:

AFF: Orientation
2 jumpmasters

Aims:

- Overcoming the sensory overload period.
- Height awareness.
- General awareness (J/Ms, camera, ground references).
- Pull completed by 4,500 ft.
- Perform canopy checks
- Follow canopy flight plan with TA assistance
- Prepared to perform a PLR.

Minimum freefall requirements:

- Exit from a minimum 9,000 ft
- Extended Practice Pull.
- Practice Pull.
- Single height awareness check.

Note: Each jumpmaster will maintain two grips on the student throughout the descent unless they are using one hand to assist the student elsewhere. (e.g. Practice Pull, pull, etc)

Minimum canopy requirements:

- Prepare canopy flight plan for prevailing wind conditions.
- Altitude awareness
- Follow the flight plan with TA assistance.
- PLR after flare if required.

TAF: Orientation
(1 tandem jump minimum)

Aims:

- Overcoming the sensory overload period.
- Height awareness.
- General awareness (TM, camera, ground references).
- Pull completed by 5,000 ft.
- Perform canopy checks
- Follow canopy flight plan with TA assistance
- Legs-up for safe landing

Minimum freefall requirements:

- Exit from a minimum 9,000 ft
- Extended Practice Pull.
- Practice Pull.
- Single height awareness check.
- 6,000 ft wave, 5,500 ft reach, pull. Commence count.

Minimum canopy requirements:

- Prepare canopy flight plan for prevailing wind conditions.
- Altitude awareness

Follow the flight plan with TA assistance.

Stage 2:

AFF: Forward movement
2 jumpmasters

Aims:

- Heading awareness (ground reference).
- Arm and leg awareness.
- Turning
- Pull completed by 4,500 ft.
- Canopy circuit awareness
- Following canopy flight plan

Minimum freefall requirements:

- Exit from a minimum 9,000 ft
- Extended Practice Pull.
- Forward and backward trim.
- Introduction to turns.
- Single height awareness check.

Minimum canopy piloting requirements:

- Prepare canopy flight plan for prevailing wind conditions.
- General awareness of circuit following TA.
- Flare under direction of TA.

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Stage 3:

AFF: Hover control

2 jumpmasters

Aims:

- Practice Pull at jumpmasters' option.
- Heading maintenance.
- Hover control.
- Solo pull completed by 4,000 ft.

Minimum freefall requirements:

- Exit from a minimum 8,000 ft
- Arm and leg trim confirmation.
- Height awareness check at 5,000 ft.

Minimum canopy piloting requirements:

- Prepare canopy flight plan for prevailing wind conditions.
- Fly circuit pattern unassisted by TA (unless required).
- Flare under direction of TA (if required).

Once the trainee has successfully completed Stage 3 of this AFF Training Table, CIs may choose to incorporate minimum manoeuvres described in the Class A Canopy Handling Training Table (Appendix G).
The DZSO will consider the trainee's experience, proficiency and past history, the type of canopy, weather conditions and any other risk factors before allowing the additional canopy handling manoeuvres to be added into a particular AFF stage.

Stage 4:

Consolidation

1 jumpmaster *Note: A single jumpmaster exit is optional on this jump.*

Aims:

- Practice Pull at jumpmasters' option.
- Heading maintenance.
- Hover control.
- Longer solo freefall time.
- Solo pull completed by 4,000 ft.

These are as per Stage 3, but with emphasis on improving hover control and eliminating any faults or problems encountered on the previous jump.

Minimum freefall requirements:

- Exit from a minimum 8,000 ft
- Arm and leg trim confirmation.
- Height awareness check at 5,000 ft.
- Wave and pull.

Minimum canopy piloting requirements:

- Prepare canopy flight plan for prevailing wind conditions.
- Fly circuit pattern unassisted by TA (unless required).
- Flare unassisted by TA (unless required).

Completion of the required aims and minimum manoeuvres may need more than the specified minimum number of jumps for each stage.

Stage 5:

Turns and docking

Aims:

- Single jumpmaster exit (linked exit at J/M's option).
- 360° turns.
- Forward movement and docking
- Pull completed by 4,000 ft

Minimum requirements.

- Exit from a minimum 8,000 ft
- 360° turn followed by pin, then opposite 360° turn and pin.
- Hand flash awareness check at 5,000 ft.
- Wave and pull
- Prepare canopy flight plan for prevailing wind conditions.
- Fly circuit pattern unassisted.
- Flare unassisted.

Stage 6:

Consolidation

Aims:

- 360° turns.
- Forward movement and docking.
- Pull completed by 4,000 ft.

Minimum requirements:

- Exit from a minimum 8,000 ft
- Solo exit.
- Turns and pins as per stage 5, (with increased separation).
- 180° turn, wave, and pull.
- Prepare canopy flight plan for prevailing wind conditions.
- Fly circuit pattern unassisted.
- Flare unassisted.

Stage 7:

Instability Recovery and Tracking.

Aims:

- Sub-terminal control.
- Instability recovery (back loops or barrel roll).
- Tracking.
- Pull completed by 4,000 ft.

Minimum requirements:

- Exit from a minimum 8,000 ft
- Dive exit.
- Instability recovery (back loops or barrel roll).
- Locate and track 90° to wind-line/jump run.
- Flare at 4,500 ft, wave and pull.
- Prepare canopy flight plan for prevailing wind conditions.
- Fly circuit pattern unassisted.
- Flare unassisted.

Stage 8:

Fast and slow fall, tracking consolidation.

Aims:

- Fast and slow fall.
- A straight track.
- Pull completed by 4,000 ft.

Minimum requirements:

- Exit from a minimum 8,000 ft
- Poised exit.
- Fast fall to jumpmaster's level.
- Slow fall to jumpmaster's level.
- 180° turn and straight track.
- Flare, wave and pull.
- Prepare canopy flight plan for prevailing wind conditions.
- Fly circuit pattern unassisted.
- Flare unassisted.

Stage 9:

Clear and pull

Aims:

- Orientation/familiarisation for exits at lower height.
- 3 to 5 second delay.
- Pull completed by 3,500 ft.

Minimum requirements:

- Exit from a maximum 4,500 ft
- Spotting unassisted.
- Poised exit.
- 3-second delay.
- Collapse slider (if student gear has a collapsible slider).
- Fly circuit and flare unassisted.

***Note**: Once student parachutists have successfully completed Stage 9 of a Student Training Table, they may be approved to commence flatfly RW descents but only with an instructor. Once they've attained their Certificate A, they may be approved to jump with a Cert B Coach. (see OR 14.4 for conditions). See matrix in 4.14 for a summary guide to these requirements.*

Appendix F: A Modified Student Training Table (SFF with AFF)

This training table differs from the standard SFF Training Table with the DRP IAD/SLD descents and existing stages 2 and 3 being replaced by two additional IAD/SLD descents (without DRP) and an AFF descent.

Stage 1: Stable solo IAD or SLD descents (no Practice Pulls). First jump from minimum 3,500' AGL; jumps 2, 3 and 4 from minimum 3,000' AGL.

(Jumps 1 to 4)

Four stable IAD or SLD descents

Prerequisites:

- First jump course

Aims:

- Exit the aircraft stable
- Maintain stability throughout the opening of the parachute.
- Perform canopy checks
- Follow canopy flight plan, initial jumps with TA assistance and prepared to perform a PLR.

Minimum requirements:

- Stable body position (arch).
- Prepare canopy flight plan for prevailing wind conditions.
- Altitude awareness under canopy
- Follow the flight plan with TA assistance; and PLR after flare (if required).

Stage 2: AFF (~stage 1/2/3) – a stable freefall with Practice Pulls and two Jumpmasters (from minimum exit height of 9,000' AGL). Main deployment pull completed by 4,500' AGL.

(Jump 5)

Prerequisites:

- Exit the aircraft stable
- Maintain stability throughout the opening of the parachute
- Understanding:
  - Any differences in the time or speed of opening of the parachute
  - The timing/delay procedure required for the descent
  - The procedures for a hard pull or floating ripcord / lost handle
  - Malfunction procedures and the necessity to discard the ripcord
  - Revised procedures with regard to emergency exits.

Aims:

- Overcoming the sensory overload period.
- Height awareness – learning instruments (altimeter training).
- General awareness (J/Ms, camera, ground references).
- One extended practice pull and three normal practice pulls.
- Deployment pull completed by 4,500 ft.

Minimum requirements:

- 1 Extended Practice Pull.
- 3 Practice Pulls.
- Minimum single height awareness check.
- Deployment pull completed by 4000 ft.
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted

[Continued over page]

Note: All jumpmasters will maintain two grips on the student throughout the descent unless they are using one hand to assist the student elsewhere.
(e.g. Practice Pull, pull, etc)

***Note**: An instructor may accompany the student (unlinked) from stages 3 to 8 for the purpose of improved evaluation.*

Once the trainee has successfully completed Stage 2 of this Modified Training Table, CIs may choose to incorporate minimum manoeuvres described in the Class A Canopy Handling Training Table (Appendix G).
The DZSO will consider the trainee's experience, proficiency and past history, the type of canopy, weather conditions and any other risk factors before allowing the additional canopy handling manoeuvres to be added into a particular stage.

Stage 3: A stable 10-second freefall descent on heading (first solo freefall) (from minimum height of 4,200' AGL)

(Jump 6)

Prerequisites:

- Stability during aircraft exit, throughout PP's and opening of the parachute.
- DZSO satisfied that the student is competent to make the descent safely, authorising the first solo freefall descent (log book entry).
- Understanding:
  - Any differences in the time or speed of opening of the parachute
  - The counting procedure required for the descent
  - The reason for maintaining a heading and the means of doing so
  - The procedures for a hard pull or floating ripcord / lost handle
  - Malfunction procedures and the necessity to discard the ripcord
  - Revised procedures with regard to emergency exits.

Aims:

- Remain on heading during a safe, stable and competent 10-second delay solo freefall descent.
- Initiate opening procedures after the correct time in freefall.
- Canopy circuit awareness
- Follow canopy flight plan

Minimum requirements:

- Control of a stable body position.
- Effective pull on a 10-second delay (within 25% of the stipulated time, i.e. 8 to 12 seconds)
- Effective pull on a 10-second delay (within 25% of the stipulated time, i.e. 8 to 12 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 4: A stable 12-second solo freefall descent (from minimum height of 4,400' AGL)

(Jump 7)

Prerequisites:

- Stability during aircraft exit, pull and throughout the opening of the parachute.
- Fully understand the use of the altimeter, the techniques required to read it, and the procedures to be taken if the altimeter cannot be read.
- Understand that until they are fully competent in the use of the altimeter, they must continue to count in freefall, and to pull the ripcord or pull-out pilot-chute when the altimeter indicates opening height or the count is complete, whichever is sooner.

Aims:

- Consolidation of previous stage with fall rate approaching terminal flatfly velocity.

- Remain on heading during a safe, stable and competent 12-second freefall descent
- Use the altimeter to determine the nominated altitude to initiate opening procedures or to initiate opening procedures after the correct time in freefall.

Minimum requirements:

- Consistently demonstrate the ability to read the altimeter in freefall, opening at the nominated height, and maintaining stability and heading throughout the freefall
- Effective pull on a 10-second delay (within 25% of the stipulated time, i.e. 8 to 12 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 5: Stable 15-second solo freefall descents using delta and relaxed arch positions

5 (a)
(Jump 8)

A stable 15-second solo freefall using delta position (from minimum height of 5,000' AGL)

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the delta position and how to achieve it.
- Understand the basic aerodynamics of the human body in this position, that it is a head-low position and its use for recovery from instability or uncontrollable spins.

Aims:

- Demonstrate the ability to adopt and hold the delta position in freefall and return to the arch without loss of stability, heading or height awareness.

Minimum requirements:

- Transition from stable arch to a held delta position and return to arch.
- No loss of stability, heading or height awareness.
- Effective pull on a 10-second delay (within 25% of the stipulated time, i.e. 8 to 12 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

5 (b)
(Jump 9)

A stable 15-second solo freefall using relaxed arch (box) position (from minimum height of 5,000' AGL)

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the relaxed arch position, how to achieve it and its use.

Aims:

- Demonstrate the ability to fly in a relaxed arch position without loss of stability, heading or height awareness.

Minimum requirements:

- Fly in a relaxed arch position
- No loss of stability, heading or height awareness.
- Effective pull on a 15-second delay (within e.g. 12 to 18 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 6: Stable 20-second solo freefall descents, with left and right turns, and then a backloop

6 (a)
(Jump 10)

A stable 20-second solo freefall with a left and right turns (from minimum height of 6,000' AGL)

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the technique for turning and stopping on heading.

Aims:

- Learn/Improve control of the body through the horizontal plane.
- Demonstrate the ability to initiate a flat turn in freefall, maintain it through 360 degrees and stop it on heading, without loss of stability or height awareness.
- Repeat the manoeuvre in the opposite direction.

Minimum requirements:

- From heading, initiate left and right turns through approximately 360 degrees.
- Stop each turn within 45 degrees of the original heading.
- No loss of stability, heading or height awareness
- Effective pull on a 20-second delay (within e.g. 16 to 24 seconds).
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

6 (b)
(Jump 11)

A stable 20-second solo freefall with backloop (from minimum height of 6,000' AGL)

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the technique for performing a backloop.

Aims:

- Learn/Improve control of the body through the vertical plane.
- Demonstrate the ability to perform a backloop in freefall without losing stability or height awareness.
- Repeat the manoeuvre.

Minimum requirements:

- Backloop
- No loss of stability or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 7: A stable 25-second solo freefall descent with a figure-eight turn and backloop (from minimum height 6,500' AGL)

(Jump 12)

Prerequisites:

- Demonstrated on the previous stage, satisfactorily turning and stopping on heading and performing a backloop.

Aims:

- Consolidation of previous stages, for control of the body through the horizontal and vertical planes.
- Demonstrate the ability to fly smooth figure-eight turns (left through 360 degrees and right through 360 degrees) stopping on original heading, followed by smooth backloops.

Minimum requirements:

- Figure-eight turns stopped within 20 degrees of the original heading.
- Backloop(s) demonstrate control in the vertical plane.
- No loss of stability or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 8: Stable 30-second freefall descents using track and track with S-turn

8 (a)
(Jump 13)

A stable 30-second freefall using track (from minimum height of 7,500' AGL)

Note: Instructor may accompany the student on this descent.

Prerequisites:

- Understand and be able to demonstrate (on the ground or in a simulated environment) the body position for a track and how to achieve it.
- Understand the basic aerodynamics of the human body in the track position and the need to provide safe separation following relative work break-off.
- Understand and be able to demonstrate (on the ground or in a simulated environment) a flare, look above (clear) and wave-off prior to initiating opening, and the purpose of these manoeuvres.

Aims:

- Demonstrate the ability to initiate and maintain horizontal movement in freefall using the track body position, without loss of heading, stability or height awareness.
- Demonstrate ability to flare and wave prior to opening.

Minimum requirements:

- Track on heading.
- Flare, wave and pull.
- No loss of stability, heading or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

8 (b)
(Jump 14)

A stable 30-second freefall descent using track with S-turn (from minimum height of 7,500' AGL)

Note: Instructor may accompany the student on this descent.

Prerequisites:

- Demonstrated a straight track.
- Understand and be able to demonstrate (on the ground or in a simulated environment) the technique required to perform an S-turn during a track.

Aims:

- Consolidation of previous descent, tracking, flare, wave and pull.
- Demonstrate the ability to make large changes in the direction of a track, both to the left and to the right, without loss of stability or height awareness.

Minimum requirements:

- Turn left and right during tracking.
- Flare, wave and pull.
- No loss of stability or height awareness
- Prepare canopy flight plan for prevailing wind conditions
- Fly circuit pattern unassisted
- Flare unassisted.

Stage 9: Evaluation descent with an instructor

(Jump 15)

A freefall descent with an instructor to evaluate air skills (from minimum height of 9,000' AGL)

Notes: This descent will be the student's first RW jump. Exit may be linked or unlinked.

Prerequisites:

- Satisfactorily completed all previous stages and descents in this training table.

Aims:

- Demonstrate the ability to remain relative to the instructor, initiate breakoff, turn and track without loss of stability or height awareness.
- Evaluation of arm and leg awareness, fast and slow fall, body position and hover control.
- May also be to consolidate previous learning or to improve areas of weakness.

Minimum requirements:

- Use of body position, arms and legs and fast and slow fall to remain relative.
- Breakoff initiated with a turn and track.
- Flare, wave and pull.
- No loss of stability or height awareness
- Collapse slider (if student gear has a collapsible slider).
- Fly circuit and flare unassisted.

***Note**: Once student parachutists have successfully completed Stage 9 of a Student Training Table, they may be approved to commence flatfly RW descents but only with an instructor. Once they've attained their Certificate A, they may be approved to jump with a Cert. B Coach. See OR 14.4 for conditions and the matrix in 4.14 for a summary guide to these requirements.*

Appendix G: Class A Canopy Handling Training Table

Canopy handling training for students wishing to achieve a Certificate Class A requires the following minimum manoeuvres.

In-Flight Exercises	**Slow Flight, Stalls and Recovery** These exercises may require 1, two or more jumps observed (from the air or from the ground) by an appropriately qualified canopy coach or instructor approved by the DZSO. **Aims:** • To demonstrate competence of canopy control in all braked configuration • To demonstrate the ability to control stall recovery • To demonstrate a "maximum recovery" from a hook turn. **Minimum manoeuvres:** • The pilot will demonstrate the ability to fly the canopy as slowly as possible without stalling and also will demonstrate the ability to stall and recover flying speed without allowing the canopy to surge forward or lose directional control. • The pilot will demonstrate static and dynamic stalls and the ability to recover from both. • The pilot will demonstrate the ability to perform a "maximum recovery" from a hook turn (at height) by bringing the other toggle down to meet the turning toggle without stalling and will also demonstrate this recovery from a front riser turn.
Landing Exercise 1	**Full Glide Square Approach** **Aims:** • To be able to judge glide angle and track in different wind conditions at full glide. • To be able to judge safe and precise pre-planned turning heights. • To be able to execute a standard full glide, square approach landing pattern without resort to major steering corrections. • To be able to land safely within the required distance. **Minimum manoeuvres:** • The pilot will fly a precise landing pattern at full glide, turning downwind to base at 500 ft (± 50 ft), turning base to final at 250 ft (± 50 ft), and landing with only minor directional corrections within 30 metres of the target.
Landing Exercise 2	**Braked Short Approach** **Aims:** • To be able to judge glide angle and track in different wind conditions in a braked configuration. • To be able to judge safe and precise pre-planned turning heights. • To be able to execute a braked, square approach landing pattern without resort to major steering corrections. • To be able to land safely within the required distance. **Minimum manoeuvres:** • The pilot will release the brakes and then fly most of the descent with between ½ and ¾ brake applied demonstrating braked turns and slow controlled flight until turned onto finals when the pilot will execute a full drive/full flare landing within 30 metres of the target.

Appendix H: Class B Training Table (CBTT)

Instructor qualifications: Novices require the direct supervision of an instructor or a Certificate B Coach for the freefall RW jumps, and an appropriately qualified canopy coach for the canopy handling manoeuvres.

	FREEFALL RW (all flatfy) *(also known as 'B-Rel' table)*	**CANOPY HANDLING**
All skill levels	Objectives for every jump must include freefall height awareness, tracking away from others, wave-off and deployment at planned altitude.	Every canopy flight should include T.A.P.S. checks (Traffic, Altitude, Position, Socks) with a safe landing paramount.
Skill Level 1	• Unlinked exit, flying base and basic pinning technique • Repeat, awareness of tension in grips • Use of peripheral vision • Fine hover control.	• Rear riser turns
Skill Level 2	• Unlinked exit side docks. May include side-shot monopoles	• Stall and stall recovery
Skill Level 3	• Unlinked exit demonstrating basic pinning technique • Tracking relative to the coach's position and directions.	• Brake turns • Flare turns
Skill Level 4	• Maintenance of relative height while flying to different points in a formation • Maintenance of relative height while manoeuvring.	• Harness turns

***Note**: Except for training descents under Part 11 of the Operational Regulations, OR 9.1.2 restricts RW descents unless the parachutist holds at least a Certificate Class B. Once successfully completed Stages 1 to 4 of this CBTT, the novice may participate in flatfly RW descents with one other parachutist providing exits are also flatfly in orientation. They must however remain under the direct supervision of a DZSO or higher holding an SFF or AFF endorsement (see OR 11.4).*

Optional Tracking Skill	• Navigation • Tracking	• Awareness of jump run
Skill Level 5	• 3-ways: basic skills.	• Elective: Repeat weakest skill(s)

***Note**: Once Stage 5 has been successfully completed, the novice may engage in flatfly RW with no more than three other parachutists providing the DZSO has given the approvals required under OR 11.4.4 (a).*

Skill Level 6	• Novice to design and organise a minimum of three descents involving two or three other skydivers, one an instructor or an approved Cert B Coach (a coach provides guidance). • One of these descents to be a successful 3-point 4-way with complete breaks between formations, and at least one must have an unlinked exit and be free-built.	• Dealing with traffic, gaining vertical separation to minimise congestion in the circuit and landing area.

See the 'Certificate Class B Training Guide' for additional details of the freefall RW (flatfly) training descents and canopy handling manoeuvres listed in this table.

Following completion of Stage 6, the Novice may be certified by a Chief Instructor as safe and competent to participate in up to 10-person flatfly relative descents.

Appendix I: Canopy Training Descent with an approved Coach

To obtain a Certificate Class B, it is highly recommended the candidate perform the following canopy training descent with an approved Coach.

Minimum exit altitude 7000 feet, minimum break-off altitude 2000 feet. Use of Bluetooth headsets are recommended as the best form of communication during this training descent.

A thorough briefing including emergency wrap and entanglement scenarios should be done prior to this skydive.

1. Novice performs a poised exit with a 5-second delay, opens parachute and steers parachute up line of aircraft flight.
2. The trainer exits second and flies to a position next to the novice, approximately two canopy lengths away and establishes communication. The trainer will keep the same horizontal distance from the novice during the following exercises.
3. The trainer pulls down both rear risers to go up and forwards in relation to the novice. The novice then pulls down both rear risers to end up in the same position next to the trainer.
4. The trainer pulls down both toggles to go up and backwards in relation to the novice. The novice then pulls down both toggles to end up in the same position next to the trainer.
5. The trainer demonstrates a stall and stall recovery. The novice performs a stall and stall recovery.
6. The trainer leans forward in the harness and tucks-up body into a small position to move forwards in position to the novice. The novice then leans forward and tucks-up body into a small position to end up in the same position as the trainer.
7. The trainer assumes a wide body position with arms and legs spread out to slow up relative to the novice. The novice assumes a wide body position to end up in the same position as the trainer.
8. The trainer makes a harness turn between 45 and 90 degrees away from the novice. The novice then follows the trainer using a harness turn in the same direction.
9. The novice makes a harness turn between 45 and 90 degrees away from the trainer. The trainer then follows the novice using a harness turn in the same direction.
10. Repeat above with rear riser turns, braked turns and flare turns.
11. The trainer completes a hook turn and maximum recovery (a hard 180° turn and immediately apply the other brake to flare the canopy). The novice completes a hook turn and maximum recovery to end up behind the trainer.
12. The trainer flies in front of the novice to demonstrate the effects of the burble and where it is in relation to another parachute.
13. Landing using a normal circuit pattern.

Upon satisfactory completion of this canopy training jump, the parachutist's log is to be endorsed by the canopy coach.

Appendix J: Canopy Training for Certificate Class C

Course content

Before making a Basic Canopy training descent, the trainee must have a good knowledge of the theoretical and practical aspects of canopy piloting. The following is a guide to course content:

(a) **Pre-requisite training**: recognise prior knowledge of Certificate A & B canopy piloting skills.

(b) **Fundamentals:** flight planning, priorities under canopy (TAPS), circuits and accuracy, flare technique, PLRs.

(c) **Safety:** order of priorities, recovery arc and flight cycle, recommendations for safe downsizing.

(d) **Knowledge of weather**: check forecast, local conditions, signs of change, recognition of lift and sink, air density, wind gradient.

(e) **Equipment:** housekeeping (chest strap and slider), gear checks – brake line length, canopy trim, component life.

(f) **Aircraft**: spotting, in-plane procedures, climb-out, exit and exit order.

(g) **Controls and their effects:** brakes, harness, rear risers, front risers.

Appendix K: Night Jump Training Table

Note: *Certificate Class F applicants are only required to complete <u>one</u> night jump to qualify for the 'F'.*

Instructional requirements: Supervision of a CI and a course of instruction to be given by an Instructor with either a Course Trainer or DZSO Endorsement.

Background: Skydivers infrequently make night jumps and are less familiar with and less proficient in handling themselves under the conditions of this new environment. Since the skydiver cannot perceive what is taking place as rapidly and easily as in daylight, it takes more time to react to each situation; hence the need for training that introduces them to the challenges of jumping at night using cautious approach.

Course content

Before making a first night descent, the trainee must have a good knowledge of the theoretical and practical aspects of skydiving at night as it affects the trainee. The following is a guide to course content:

(a) **General requirements**: The Operational Regulations, Regulatory Schedules and training requirements, ground-to-air communications.

(b) **Equipment requirements**: Suitable canopy, lighting (torches, dim diodes and cylum sticks), audible altimeters, clear goggles, jumpsuit colour, mobile phone (for off-DZ landings)

(c) **Physiology**: Eyes and loss of vision, night vision, bright lights, shadows, depth of field, effects of smoking, hypoxia and alcohol.

(d) **Pre-requisite training**: Demonstration of deployment and emergency procedures whilst blindfolded, daylight orientation of the DZ preferably by completing a few jumps there, logbook endorsement.

(e) **Weather requirements**: Clear skies, maximum wind strength (and direction if necessary), full moon (advisable, especially if RW planned).

(f) **Aircraft**: The spot (as set by DZSO), in-plane procedures, climb-out and exit, avoiding any bright lights.

(g) **Freefall and deployment**: Solo initially, limited difficulty of manoeuvres, limiting size of groups based on night and RW experience, 2-way or larger RW only with DZSO approval, staggering deployment altitudes and horizontal opening separation.

(h) **Under canopy behaviour**: Flying predictably and avoiding spirals, following a standard 'J' flight plan, altered depth of field.

(i) **Landing**: Potential ground rush, shadows and confusion, off-DZ landings.

The jumps

Initial freefall night jumps must focus on the trainee performing safely whilst becoming orientated to skydiving and parachuting in darkness – to limited vision during orientation and awareness of the use of equipment, in freefall, under canopy, the DZ and for landing.

Three jumps of varying length delays are required for initial orientation to skydiving at night:

Jump 1	A solo clear-and-pull (hop-and-pop).
Jump 2	A solo freefall, e.g. delay 10 to 20 seconds.
Jump 3	A solo longer delay (e.g. 30 seconds) or if approved by the DZSO, a 2-way RW jump with linked exit.

Further regulations concerning night jump training may be found in the APF regulations.

Appendix L: Freefly Training Table

See section 5.7 for requirements and privileges before during and after each stage.

STAGE 1 **Head-Up** **Level 1**	Linked exit. Break and face-off with coach. In-place, 360, stop. • Coach backs-off, trainee moves forward to face-off with coach • Coach moves up, trainee follows • Coach moves down, trainee follows • Trainee initiates break-off at agreed height and demonstrates a safe and smooth transition to a track while checking airspace for a clear flight path.

Following successful completion of Stage 1, trainees may participate in head-down training descents (Stage 3) subject to DZSO approvals and appropriate FF Coach briefings.

***Note**: No trainee is permitted to jump head-down with an unqualified Freeflyer acting (either head-up or head-down) as their reference. Neither flyer has the knowledge or experience to deal with the risk of a high-speed collision. Early attempts to fly head-down should be solo or with an appropriately qualified instructor or Freefly Coach.*

STAGE 2 **Head-Up** **Level 2**	Unlinked exit into head-up. Coach to hold base and trainee to approach and face-off within five metres. • Hand-to-hand dock • Coach signals for front loop • Coach signals for backloop • Hand-to-hand dock • Trainee to initiate break-off at agreed height and demonstrate smooth transition to track while checking airspace for a clear flight path.

Proficiency at head-up and successful completion of Stage 2 are eligibility requirements for Freefly Crest Head-Up (FFC HU).

STAGE 3 **Head-Down** **Level 1**	Linked head-down exit. Break to face-off with coach. In-place, 360, stop. • Coach backs-off, trainee moves forward to face-off with coach • Coach moves up, trainee follows • Coach moves down, trainee follows • Trainee to initiate break-off at agreed height, turn 180 and demonstrate smooth transition to back track.
STAGE 4 **Head-Down** **Level 2**	Unlinked exit to head-down. Coach to hold base and trainee to approach and face-off within five metres. • Hand-to-hand dock • Coach signals for front loop • Coach signals for half transition to head-up • Coach signals for half transition back to head-down • Hand-to-hand dock • Trainee to initiate break-off at agreed height, turn 180 and demonstrate smooth transition to back track.

All stages must be signed-off by current freefly coach and DZSO before progressing to the next level.

On completion of all stages, trainee may be deemed competent and safe in writing by the CI.

Proficiency at head-down and successful completion of Stage 4 are eligibility requirements for Freefly Crest Head-Down (FFC HD).

Appendix M: Wingsuit Training Table (WSTT)

The WSTT is divided into three parts:

1. PART A: First flight and basic wingsuit flying – three initial stages (minimum three descents).
2. PART B: Consolidation and Restricted RW - Building experience and confidence (no fixed number of descents)
3. PART C: Wingsuit Crest – four stages (minimum four descents).

Each stage of this training table must be completed to the satisfaction of the Wingsuit Coach and DZSO before progression to the next stage.

Each wingsuit training descent is to be signed-off in the trainee's log book by the Wingsuit Coach.

See also guidelines on types of wingsuits recommended for use by beginners and experienced Wingsuit flyers, shown on the APF website.

PART A: First Flight and Basic Wingsuit Flying (Stages 1 – 3)

Stage 1

First wingsuit flight (with a Wingsuit Coach)

Prerequisites:

- First Wingsuit jump course, including:
  - Equipment, accessories and appropriate choice of wingsuit
  - Basic flight characteristics of wingsuits
  - Jump run, exit point, flight path and landing pattern
  - Emergency procedures for aircraft, freefall and under canopy.
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Exit the aircraft stable and demonstrate control
- Fly the planned flight path (left or right hand circuit)
- Time/altitude awareness maintained
- An effective Practice Pull
- Demonstrate three heel clicks as part of deployment procedure at correct pre-planned altitude
- Maintain stability throughout opening of the parachute
- Wingsuit emergency procedures.

Minimum requirements:

- Able to demonstrate appropriate emergency procedures
- Stability during exit, descent and deployment
- Height awareness maintained
- Control demonstrated during execution of flight plan
- Correct use of deployment signal and opening at pre-planned altitude.

Stage 2

Corrective measures and deployment procedures
(Repeat stage 1. Optional with Wingsuit Coach)

Prerequisites:

- Stage 1 minimum requirements met to the satisfaction of the Wingsuit Coach and DZSO.
- Stage 1 flight control and procedural deficiencies identified for improvement during this stage 2 descent.
- Pre-jump knowledge check.
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Correct any deficiencies and improve on stage 1
- Explain and demonstrate why it is not acceptable to approach a flock:
  - Head-on or side-on
  - From below (i.e. not to drive up from underneath)
- Describe wingsuit burble, its placement and potential effect on a flock
- What to do to avoid or resolve these situations.

Minimum requirements:

- Stability during exit, descent and deployment
- Height awareness maintained
- Understanding of appropriate flock approach angles, the effects of burble, and how to avoid and/or resolve these situations
- Control demonstrated during achievement of flight plan
- Correct use of deployment signal and opening at pre-planned altitude.

Stage 3

First Wingsuit RW (2-way or 3-way)
(with a Wingsuit Coach. For a 3-way, the 3rd skydiver may be an experienced WS flyer approved by a Wingsuit Coach)

Prerequisites:

- Stage 2 minimum requirements met to the satisfaction of the Wingsuit Coach and DZSO.
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Demonstrate correct set-up and approach to a formation/base
- Demonstrate flight manoeuvres: forward drive, move around, breaking, lift
- Fly predetermined flight path to the specified height
- Demonstrate a single heel click at break-off
- Demonstrate three heel clicks as the deployment signal.

Minimum requirements:

- Stability during exit, descent and deployment
- Height awareness maintained
- Required approach and flight manoeuvres demonstrated
- Predetermined flight path flown to the specified height
- Correct use of deployment signal and opening at pre-planned altitude.

PART B: Consolidation and Restricted RW

Stage 4

Building experience and confidence (See specific restrictions below)

Prerequisites:

- Part A of WSTT completed to the satisfaction of Wingsuit Coach and a CI
- Trainee wingsuit flyer has obtained written and signed approval of a Wingsuit Coach and a CI in order to participate in restricted relative work during wingsuit descents.
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Build experience and confidence
- Practise individual manoeuvres, flight planning and restricted RW (maximum 3-ways)

Type of descents

- Lone descents
- Small RW formation skydives restricted as follows:
  - 2-ways with a Wingsuit Coach or a wingsuit flyer approved by a Wingsuit Coach;
  - The addition of an experienced WS camera person on a training descent must be approved by a Wingsuit Coach.

Minimum requirements:

- Stability during exit, descent and deployment
- Height awareness maintained
- Break-off, effective separation and deployment at appropriate heights.

PART C: Wingsuit Crest (Stages 5 – 8)

The goal of Part C is for the WS flyer to achieve a level of proficiency where they can be trusted in RW formations and show control! If they are not ready, they must not be deemed competent.

Part C training descents may be observed by a Wingsuit Coach or reviewed from video taken by an experienced WS flyer approved by a Wingsuit Coach.

Stage 5

Controlled touch or docks (with a Wingsuit Coach or an experienced WS flyer approved by a Wingsuit Coach)

Prerequisites:

- Part B of WSTT completed to the satisfaction of Wingsuit Coach and a CI
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Trainee must fly over or under the approved Wingsuit Coach or experienced WS flyer, alternating between controlled docks and/or touches.

Minimum requirements:

- Stability during exit, descent and deployment
- Height awareness maintained
- Satisfactory completion of planned manoeuvres
- Break-off, effective separation and deployment at appropriate heights.

Stage 6

3-way RW (with a Wingsuit Coach and an experienced WS flyer approved by a Wingsuit Coach)

Prerequisites:

- Stage 5 completed to the satisfaction of Wingsuit Coach and the DZSO
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Trainee must show control and fly their slot during planned manoeuvres
- Trainee to initiate break off.

Minimum requirements:

- Stability during exit, descent and deployment
- Height awareness maintained
- Control maintained in slot during planned manoeuvres
- Initiates break-off, effective separation and deployment at appropriate heights.

Stage 7

Barrel Roll
(with a Wingsuit Coach or experienced WS flyers approved by a Wingsuit Coach)

Prerequisites:

- Stage 7 completed to the satisfaction of Wingsuit Coach and the DZSO
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Perform or attempt to perform a barrel roll
- Recover from an unstable situation (similar purpose to the back loop in the student Training Table)

Minimum requirements:

- Stability during exit and deployment
- Recovery from barrel roll or instability
- Height awareness maintained
- Initiates break-off, effective separation and deployment at appropriate heights.

Stage 8

4-way RW (with at least one Wingsuit Coach and experienced WS flyers approved by a Wingsuit Coach)

Prerequisites:

- Stage 6 completed to the satisfaction of Wingsuit Coach and the DZSO
- Exit height to be minimum of 10,000 feet AGL.

Aims:

- Trainee to organise complete 4-way WS flight, including flight plan, exit and break-off
- Trainee conducts briefing and debrief

Minimum requirements:

- Stability during exit, descent and deployment
- Height awareness maintained
- WS RW flight planned and effectively briefed and debriefed
- Initiates break-off, effective separation and deployment at appropriate heights.

Trainees who successfully complete the Wingsuit Training Table are eligible for the APF Wingsuit Crest.

As per OR 9.1.3, participants in RW descents involving more than 10 skydivers must hold an Australian Star Crest or foreign equivalent acceptable to the APF.

Appendix N: Canopy Relative Work (CRW) Training Table

Reference: APF CRW Training Guide

Coach qualifications: Appointment by a CI.

Skill Level 1	Learning basic flight control: Front Risers, Rear Risers, Toggles
Skill Level 2	Flying as a pilot Catching/receiving docks Planing down formation.
Skill Level 3	Docking as a pin Planing up formation.
Skill Level 4	Docking third and fourth Planning the dive

Appendix O: High Performance Canopy Training

Instructional requirements: High Performance canopy coach as approved by the Expert Panel.

Course content

Before making a first high performance canopy descent, the trainee must have a good knowledge of the theoretical and practical aspects of high performance canopy piloting.

The following is a guide to course content:

(a) **Pre-requisite training**: Have attended a basic canopy course or prior recognition of Certificate A-C canopy training. Can demonstrate safe and accurate crosswind and downwind landings.

(b) **Equipment requirements**: Canopy with suitable slider stow, riser length and front riser dive loops, digital altimeter, helmet and logbook (to maintain records of heights for manoeuvres).

(c) **Acceptance of risk**: Dangers of high performance canopy piloting.

(d) **Fundamentals:** Flight planning, priorities under canopy (TAPS), circuits and accuracy, recovery arc and flight cycle.

(e) **Safety:** Order of priorities, performance range of canopy, stall point on rears and brakes, practice bail-outs at height, decision point and hard deck in circuit.

(f) **Knowledge of weather**: Check forecast, recognition of lift and sink, air density, wind gradient.

(g) **Aircraft**: Spotting, in-plane procedures, climb-out and exit, exit order.

Appendix P: Target Assistant – Sample Assessment

Candidate's Name: . . . . . Date: . . . . . .

The following assessment may be administered either as a written assessment or as an oral assessment. If conducted orally, the candidate's answers should be summarised and recorded by the assessor.

This assessment includes some questions which have set answers and some which may vary according to the CI's requirements. The CI may modify or augment this assessment to suit the needs of the particular training organisation.

1. What is the maximum wind limit for a student parachutist? . . . . . .

2. The TA's duties include advising students on their landing performance. [circle] True / False

3. Name several causes of turbulence which may affect a student parachutist close to the ground:

   . . . . . .

4. What is the best technique for a student to use for flying in turbulent conditions?

   . . . . . .

5. The TA is immediately responsible to and will receive operational instructions from which of the following: *[circle]* the student's Jumpmaster The DZSO The Chief Instructor

6. The TA should be particularly cautious of approaching thunderstorms. Why?

   . . . . . .

7. Under otherwise identical conditions, a heavier parachutist under canopy will have: *[circle]* *Greater / Less* forward speed, and *Greater / Less* downward speed.

8. Draw a provisional plan for a student canopy flight starting at 2,000 ft. Show planned turning heights:

9. Under otherwise identical conditions, a higher, deeper flare will be necessary in: *[circle] strong / light* winds?

10. What action should the TA take if a student on final approach overflies the TA (i.e. has their back to the target)?

    . . . . . .

11. Early jump students are often too excited after landing to take good care of their equipment. The TA can often help. What might the TA be looking out for in particular?

    . . . . . .

12. To whom should the TA report the student's canopy control and landing performance?

    . . . . . .

13. What procedures are to be followed should a student injure themselves on landing?

    . . . . . .

Practical assessment checklist:

☐ Candidate prepared for target/canopy control assistance session: Participated in briefing and recorded relevant information (student and gear details, despatch order and heights etc); Checked conditions were suitable for landings.

☐ Radio (set-up, operate, shut down): Candidate identified components, described controls, selected correct frequency, utilised appropriate basic radio procedure (one-way).

☐ Candidate maintained communications using an alternative signalling procedure and equipment (without radio contact).

☐ Candidate monitored weather, aerial activity of participants and ground conditions.

☐ Candidate provided appropriate feedback on individual student canopy control.

Candidate's signature: . . . .

Assessed by: . . . . *Satisfactory* *Not yet satisfactory*
(Circle one)

Retraining given in: . . . .

. . . .
Candidate's signature Instructor's signature

Appendix Q: Ground Control Assistant – Sample Assessment

Candidate's Name: . . . . . Date: . . . . . .

The following assessment may be administered as a written assessment.

This assessment includes some questions to which the answer is invariable, and some which may vary according to the Chief Instructor's requirements. The Chief Instructor may augment this assessment to suit the needs of the particular training organisation.

1. The GCA must be either a full member, short-term member or student member of the APF, so they are covered by the relevant indemnity insurance. ☐ *True* ☐ *False*

2. The CASA Instrument that describes requirements for GCA use of aviation radios can be located in which APF document?

   . . . . . .

3. The document that prescribes APF training and assessment requirements for GCAs is:

   . . . . . .

4. A GCA must be appointed for every sortie and for every parachuting display jump. ☐ *True* ☐ *False*

5. The GCA's duties include liaising with manifest, pilots and loadmasters. ☐ *True* ☐ *False*

6. The pilot advises that the cloud base is at 1900 feet and the experienced jumpers want to exit rather than land in the aircraft. Do you authorise the drop? ☐ *Yes* ☐ *No*

7. Name several causes of turbulence which may affect a student parachutist close to the ground:

   . . . . . .

8. Provide the correct phonetic designation for the following letters:

   A . . . . . C . . . . . .

   E . . . . . G . . . . . .

   I . . . . . K . . . . . .

   M . . . . . O . . . . . .

   R . . . . . S . . . . . .

   V . . . . . W . . . . . .

   Y . . . . . Z . . . . . .

9. Name three factors which affect the propagation of radio waves and how each is affects reception:

   i) . . . . . .

   ii) . . . . . .

   iii) . . . . . .

10. Which radio band, frequency and call signs are used on your DZ for GCA communications?

    Band? . . . . . Frequency? . . . . . .

    Aircraft call sign? . . . . . Ground call sign? . . . . . .

11. Apart from the band/frequency provided in your answer above, are there any other frequencies allowed for ground-to-air aviation radio use in parachuting operations? ☐ *Yes* ☐ *No*

12. What is the maximum transmitter output power allowed for a ground-to-air aviation radio in parachuting operations? ☐ *2 watts* ☐ *5 watts* ☐ *10 watts* ☐ *100 watts*

13. What is the meaning of the following terms?

    a) Correction . . . . . .

    b) I say again . . . . . .

    c) Out . . . . . .

14. What is the standard radio voice procedure for contacting the aircraft?

    . . . . . .

    . . . . . .

15. What is the standard radio procedure for responding to emergency and urgency transmissions?

    . . . . . .

    . . . . . .

16. Give the correct instruction for the following situations?

    a) You require the parachutists not to exit . . . . . .

    . . . . . .

    b) You want the loadmaster to change the exit point . . . . . .

    . . . . . .

    c) You have a seriously injured parachutist on the runway . . . . . .

    . . . . . .

17. The GCA is immediately responsible to and will receive operational instructions from which of the following:

    ☐ Aircraft loadmaster ☐ DZSO ☐ Chief Instructor

18. The GCA should be particularly cautious of approaching thunderstorms. Why?

    . . . . . .

19. What method of communication can you use to recall the aircraft if radio communication fails (e.g. due to electrical/radio failure)?

    . . . . . .

20. What is the wind limit for:

    a) Tandem parachutists? .....

    b) AFF student parachutists? .....

    c) Certified parachutists? Class A: ..... Class B: ..... Class C: .....

21. Before commencing or resuming operations, wind should remain below limits for?
☐ *10 minutes* ☐ *15 minutes* ☐ *30 minutes*

22. In the absence of an Approved Cloud Manual, what must remain visible to the parachutists throughout the descent?

. . . . . .

23. What meteorological conditions are required for night jumps?

. . . . . .

24. To whom should the GCA report if the loadmaster or pilot fails to follow ground instructions?

. . . . . .

25. What would you do if a load of tandems was five minutes from dropping and the winds had just gusted from 22 to 30 knots and the CI, who is on the ground next to you and fully aware of the wind conditions, has instructed you to give the clear to drop?

. . . . . .

. . . . . .

. . . . . .

Practical assessment checklist *(for use by CI)*:

☐ Candidate prepared for ground control assistance session: accessed information, identified hazards, sought advice, informed pilots and loadmasters, confirmed details of each load and appropriate conditions.

☐ Aeronautical radio (set-up, operate, shut down): Candidate identified components, described controls, selected correct frequency, used correctly.

☐ Candidate used correct procedures, including appropriate phraseology and phonetic alphabet.

☐ Candidate employed alternative (to radio) ground-to-air communication strategy.

☐ Candidate monitored weather, aerial activity of participants and ground conditions.

GCA CANDIDATE INFORMATION AND SUMMARY OF RESULTS		
Candidate Name:	Candidate Mobile No:	APF No:
Summary of Results:		
Written Assessment Result:	Satisfactory ☐	Not yet satisfactory ☐
Practical Assessment Result:	Satisfactory ☐	Not yet satisfactory ☐

STATEMENT BY CHIEF INSTRUCTOR *(Initial each statement if correct, and sign below)*

Chief Instructor *(Print name)* .....

- The candidate meets all prerequisites and I have conducted this assessment in accordance with APF regulations and standard procedures. .....
- The candidate has demonstrated the required practical performance, including:
  - Preparation and post GCA activities with equipment and interaction with others on information;
  - Operation of ground-based aeronautical radio using correct procedures and aviation language. .....
- The candidate has been retrained and reassessed on any knowledge or skills gap identified during the assessment process. .....
- I am satisfied with candidate's ability to use a ground-to-air aviation radiocommunication system and to act as GCA for my parachuting operations. .....

Signature ..... Date ...../...../.....

Candidate *(Print name)* .....

Signature ..... Date ...../...../.....