AUSTRALIAN PARACHUTE FEDERATION

Accelerated Freefall Endorsement Guide

VERSION 01-2023

STATUS: EDUCATIONAL/ADVISORY

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 AFF Endorsement Guide. Current Version number is shown on the front cover and in the below table. As the AFF Endorsement Guide is administered exclusively by the APF, it will be updated and amended when and as required.

Current versions of the AFF Endorsement Guide and any associated forms can be found on the APF website.

Significant changes made from the previous version are shown in Amendments.

CURRENT VERSION	RELEASE DATE
01-2023	01 April 2023

PREVIOUS VERSIONS	REPLACED BY
01-2022	01-2023
01-2021	01-2022

AMENDMENTS

VERSION	AMENDMENT DETAILS
	• Minor wording changes

Front cover photo by Skydive Ramblers

Index

1. Introduction

This booklet is designed to give guidance to Instructors and potential Instructors for the AFF Endorsement. It should supplement, but not replace, a formal course of instruction by a very experienced AFF Instructor.

1.1. The APF Instructor Scheme

The APF Instructor scheme has four levels of instructor rating which relate to levels of responsibility. In addition to these rating levels, there are four endorsements, of which AFF is one. Essentially, the ratings are about the responsibilities of an instructor and how to teach, and the endorsements are about what to teach. A rating is valid only if you hold a current endorsement as well.

	AFF	SFF	Tandem	DZSO	Course Trainer	
Instructor (Jumpmaster or Tandem Master)	✓	✓	✓	✓	✓	A Senior Instructor must hold DZSO and Course Trainer endorsements, and at least 1 of the other 3.
Senior Instructor (CI, Trainer/Assessor)	✓	✓	✓	✓	✓	

If you already hold an instructor rating with an endorsement for SFF or Tandem (or have had formal Coach training), you will have received the basics of instructional technique, and the only new material you may need to deal with is the information specific to AFF. For many candidates however, the AFF Endorsement is the first instructor qualification, and the course will usually cover basic Instructor material – instructional technique, instructor responsibilities, etc, as well as the AFF material.

1.2. The Accelerated Freefall method of instruction

The Accelerated Freefall method of instruction was developed in the USA in the early 1980s and was introduced into Australia in 1983. Previously, all students in Australia had been trained by the static-line program.

AFF has shown itself to be a safe and rapid way of training students and continues to take a growing proportion of (non-tandem) students in Australia.

Solo Freefall training continues in parallel with AFF because there remains a market for cheaper first jumps. This is because in some parts of the country weather conditions make AFF difficult at some times of the year; and because it's less intensive with regard to instructional staff.

1.3. The AFF Instructor Course

The AFF Instructor Course is usually run over nine days of intense study and practice, although there is no requirement to do so and it can be completed and examined in as little as five. Before you come to the course you will need to have prepared yourself with the necessary background knowledge and freefall skills. For most candidates the course does not allow enough free time to catch up on study that should have been done before the course started.

1.4. Formal requirements

You must:

- Hold a Certificate Class D and an Australian Star Crest;
- Hold a Packer or Rigger Rating (any grade);
- Have applied for the rating, which involves being recommended by a Chief Instructor;
- Have documented evidence (i.e. your logbook) of at least four hours' freefall time;

- Have an adequate level of English and capability in each of the core skill areas of learning, reading, writing, oral communication and numeracy (as determined by the Examiner). If there are any concerns or dispute, the Area Instructor Examiner will determine if your standard is adequate.

These are minimum requirements imposed by the APF. However, note that AFF instruction requires skills that are above average: mere possession of the minimum requirements does not guarantee that you have the necessary skills or potential. This is where the Chief Instructor's recommendation is important.

1.5. Advance study

A considerable amount of knowledge is needed by the instructor. Some of this will be imparted during the course by the tutors. This guide covers the specific AFF material: the basic Instructor material is described in the APF Instructor Guide. The Instructor Manual is an essential reference source, and every instructor needs access to a copy.

Unless you are exceptionally quick at absorbing knowledge, you will need to study in advance. You will need a good working knowledge of the following APF documents:

- Operational Regulations (especially Parts 6, 11, 14)
- Regulatory Schedules (especially RS 53 and the relevant definitions in RS 50)
- APF Instructor Guide
- Training Operations Manual (especially Parts 1 to 4 and the relevant Appendices B, C & I)
- This training guide.

1.6. Advance practice

AFF instruction demands better than average freefall skills. During the course is too late to be practising.

In general, if you cannot consistently and effortlessly do the following, you need practice before attending the AFF instructor course:

- Take a linked three way formation stable out of the aircraft;
- Recover from an unstable position with minimal loss of height;
- Be comfortable at a range of falling speeds;
- Lose or gain height on a formation rapidly;
- Fly in close no-contact formation, especially with less skilled jumpers.

If possible, you should also do some specific AFF freefall practice before the course. Some practice routines are outlined in the Appendix.

A word of caution, however: these dives should be performed under the supervision of an experienced AFF instructor or examiner, to ensure that you are not practicing incorrect procedures.

Many course leaders will conduct an “air skills evaluation dive” early in the course to check the candidates’ freefall air skills. This will usually be a relative work jump involving unlinked exits, no contact flying, and rapid response to the leader making sudden changes in height or position. Candidates who are informed that their performance in this dive is below par are well advised to postpone undertaking the instructor course until they have been able to improve their freefall skills.

1.7. What to bring with you

Check with your course trainer as to what you are expected to bring with you to the course and assessment. You will probably need at least the following:

- This Training Guide
- APF Operational Regulations and Regulatory Schedules
- APF Training Operations Manual
- APF Instructor Guide

- Your Parachuting Log, Sporting Licence and Certificates
- Your personal Packer/Rigger Log
- Note taking equipment
- Personal parachuting equipment (including jumpsuits with different fall rates, video camera equipment – check with the Course Trainer).

1.8. Course outline

The Course Trainer will determine the agenda for the course. The course may be full-time or part-time, split over several evenings and weekends. Generally about 100 hours of study and practice is involved. For a full-time course, this may mean working up to 12-hour days for a week or more. You must be prepared to devote this level of commitment to the course. If you cannot, it's best not to start.

The training course will usually consist of:

- Lectures and discussions covering the theory of AFF, briefings, debriefings, regulations, responsibilities, etc;
- Practice briefing/debriefing sessions;
- Practice jumps;
- Discussion groups.

For the practice jumps, you will normally be expected to play, in rotation with other candidates, the part of instructor and student.

You will be charged for the course and for all your jumps, including assessment jumps. You may also be charged for other costs of conducting the assessment. Be sure you know what costs you are up for, and that you can afford them before you commit yourself to the course.

By the end of the course, you will be expected to have attained the following capabilities, which the exam will test. You are required to perform very well in every capability area.

1.9. List of capabilities

At the end of the course, you should be able to do the following well. If you do not have all these abilities, you will not pass the exam:

- Know the stages of the Freefall (AFF) Training Table, what is required of the student and of the jumpmasters.
- Be able to perform well as either jumpmaster on each of the stages.
- Deliver a competent briefing to a student on each stage.
- Perform competent debriefs with and without video on all jumps, and complete adequate log entries.
- Select, fit and check student equipment.

In terms of competency, minimum critical aspects of assessment cover:

- Selection, fitting and checking of student equipment.
- Knowledge of current industry standards for Accelerated Freefall training descents and the associated requirements of the student and the jumpmaster.
- Delivery of briefing to and perform debriefing of a student undertaking Accelerated Freefall training descents.
- Accelerated Freefall jumpmaster activities and descents to minimum performance requirements described in current industry standards.
- Knowledge for dealing with emergency procedures covering a range of scenarios, including student refusal to exit.

1.10. Conduct during the Course and Assessments

Your attitude toward your own training is an important part of the assessment of you. If you cannot relate well to the discipline of a training course, it is unlikely that you will be able to inspire students to relate well to the discipline of their own training.

In particular, pay attention to the following:

- Be punctual for classes, jumps etc. Be there on time and ready to go. Ready to go means having all your equipment (parachuting or note-taking, etc); mentally alert; having completed all required preparation.
- Be considerate of other class members and trainers.
  - No noisy partying while others need their rest;
  - Be patient and offer help when others are progressing slower than you;
  - Be tolerant of other people's mistakes;
  - Make criticisms privately and only to the person concerned.
- Participate eagerly and to the full. Your attitude is infectious: don't let your problems affect other candidates.
- Accept constructive criticism and apply it. It is OK to make mistakes, remember, this is how we learn and improve.
- Discuss any problems with the Course Trainer. You are trained to be a professional skydiving instructor.

Note

Most Training Organisations have adopted the industry standard Training Operations Manual (TOM) produced by the APF. The content of this AFF training guide is aligned to the industry standard TOM. However there are some Training Organisations that operate with an approved “modified” TOM, which may include Training Tables and other variations that differ from the standard TOM.

In addition to these approved differences, Chief Instructors may have in place standard operating procedures for training jumps that differ again, e.g. CIs may raise the minimum heights on their DZ for student despatches/exits, AFF awareness checks, wave-off and deployment.

Whether you are undertaking an instructor course or delivering training, you need to be mindful of the standards set by regulations and mandatory manuals (on which you will be assessed) and those approved for use in practice on your drop zone (and/or during the AFF instructor course).

For further information, or if in doubt, check with your Chief Instructor and Course Trainer.

2. The Assessment

The assessment for the AFF instructor endorsement consists of written, oral and practical components.

If you do not already hold an instructor rating, you will also sit written and oral exams for the Instructor rating, which test your knowledge of instructor responsibilities and teaching techniques.

To pass the written exams, you will need a good knowledge of the following documents:

- APF Operational Regulations and Regulatory Schedules;
- This guide;
- APF Instructor Guide;
- APF Training Operations Manual, in its entirety.

Refer to 1.5 of this guide for further guidance.

The oral exam is designed to probe your knowledge of instructional techniques and AFF procedures. You will need a good general knowledge of these areas and a good grasp of the knowledge imparted to you during the course. The oral exam will normally be conducted by a panel of three – the examiner and two other AFF instructors.

The practical exam will test all practical parts of the AFF jumpmaster's task. You will be allowed to make a maximum of six assessment jumps with an examiner. To pass the assessment, you must score a minimum of six points, each dive being score as follows:

0% - 79%	0 points
80% - 89%	1 point
90% - 100%	2 points

Note that any action (or lack of action) which constitutes a significant safety problem will result in a zero score for that section. Loss of height awareness and major equipment faults are examples.

The examiner will return completed exams to the APF Office, and your new rating/endorsement will be issued from there. The APF Office may not issue the rating/endorsement unless:

- You have been recommended by a Chief Instructor (on your application form) and paid for the application
- You are a current member of APF
- You hold a Certificate Class D or higher
- You hold a Packer B rating or higher
- You have written evidence (your log) of at least 4 hours freefall
- You have passed each section of the exam (written, oral, practical)
- The Examiner has recommended that the rating/endorsement be issued

3. AFF Endorsement and Instructor Practical Assessment

A copy of the examiner's practical assessment sheet is printed here so that you can see the areas in which you are being examined.

PRACTICAL ASSESSMENT JUMP RECORD SHEET - JUMP ONE

AFF Stage # (please circle)	1	2	3	4	5	6	7	8

Date of Jump_____

SECTION 1 – BRIEFING	COMMENTS	SCORE
1. **General Preparation** of briefing area and training aids. Detailed, logical lesson plans.		...../10
2. **Paperwork** Check log book, student licence, general health etc. Check Flight plan against conditions.		...../10
3. **Revision** of Emergency Procedures and any skill relevant from previous stage		...../10
4. **Communication of Aims and Sequence** Cross related		...../10
5. **Explanations** Concise and clear		...../10
6. **Demonstrations** Accurate and Rehearsed		...../10
7. Skill Development (through explanation and demonstration)		...../10
8. **Practice** (Adequate amount with fault identification and correction)		...../10
9. **Achievement of Brief objectives**		...../10
10. **Presentation and Attitude**		...../10
Section 1 Total ...../100	**%**	

SECTION 2 – PREPARING FOR THE SKYDIVE	COMMENTS	SCORE
1. **Briefing** of GCA (and TA/CCA as applicable)		...../10
2. Gearing up - Equipment Inspection (including fitting and adjustment)		...../20
3. Dirt diving – Final rehearsal of skydive including exit procedures		...../10
4. **Canopy Control** Check winds and reinforce Flight Plan		...../10
5. Aircraft - Inspection of aircraft		...../10
6. Pilot Brief Composition of load, DZ fly over, Run In Direction, exit height, exit point, etc		...../10
7. **Aircraft Demeanour and Management**		...../10
8. **Accuracy and Supervision of Spot**		...../10
9. Climb-out Sequence Grips and Communication		...../10
Section 2 Total ...../100	**%**	

Section 2 total carried forward ..../100

SECTION 3 – EXIT TO LANDING	COMMENTS	SCORE
1**. Exit initiation and cadence**		...../10
2. **Control of exit** presentation to relative air and stability recovery		...../10
3. **Awareness**		...../10
4. **Signals** Appropriate and clear. Pre – empting student's performance and height awareness		...../10
5. **Distances** within acceptable proximity		...../10
6. **Control of Student**		...../10
7. **Height awareness** Being ahead of the student		...../10
8. **Deployment height**		...../10
9**. Air Skills**		...../10
10. **Target Assistant (TA/CCA) duties**		...../10
Section 2 and 3 Total Combined ...../200 divided by 2 = **%**		

SECTION 4 – DEBRIEFING	COMMENTS	SCORE
1. **Manner**		...../10
2. **Accuracy of recall**		...../20
3. **Skill Development** (includes confirmation technique and things to work on in the future)		...../20
4. **Positive Reinforcement and critique**		...../20
5. **Video Analysis** (if available)		...../10
6. **Continuity of Debrief** including canopy control and landing		...../10
7. **Log Book entry** Evaluation and progression decision including Revision advice		...../10
Section 4 Total ...../100	**%**	

Things your student should know

Your student will have already been through a First Jump Course, conducted by an Instructor with AFF and Course Trainer endorsements.

The course will contain content as defined by your Group Member's Training Operations Manual *(standard definitions are in the 'Dictionary of Definitions' on the APF website (and a few also in the TOM 1.5*).

It is important to understand that it is not your job to be the primary teacher of these things, but to revise and confirm them. By confirming, you will pick up any omissions or misunderstandings. Omissions or misunderstandings that appear consistent across a range of students need to be discussed with the CI and Course Trainer, to ensure that future courses can be improved.

A student who cannot perform adequately should be referred back to the Course Trainer or another AFF Instructor for review. This is essential where they cannot adequately respond to *TOM 2.4 (f) Freefall emergencies.*

3.1 Key Words

Your drop zone will use standard key words, which assists the students in their drills and means instructors are consistent in their review and application. These can be varied by CI, but ideally not between the Instructor conducting First Jump Courses on the same drop zone.

These are significant for the drill periods that the First Jump Course Instructor instructs. Consult the section in the APF Instructor Guide (Part 9.7) regarding "overlearning". Using confirming questions with your student is an excellent way to build confidence in your student – as well as exposing any gaps in their learning.

It is expected that at this point you have attended a recent first jump course to gain an appreciation for what *Ab Initio* students undertake before being handed to jumpmasters.

Examples of typical key words used in procedures for main deployment and emergencies are shown in the TOM (Appendices). In the following section (3.3), you will be asked to record key words and a complete description for the drills that your student should be following. After that, throughout this document we will refer to them by the procedure name only. Understand these procedures and key words and be able to demonstrate them flawlessly – a lazy or incomplete demonstration will often result in a lazy or incomplete execution from your student. Exit drills, routine canopy inspections and emergency procedures are within the body of this guide.

Go now to the TOM Appendices for Student Equipment Main Deployment and Emergency Procedures.

Time Awareness Count

Used after execution of main or reserve drills, later when tracking. After the main deployment, it is used to clear a pilot-chute hesitation and provide a base timeframe for initiating emergency procedures. This time awareness count should take six seconds, thus approximately 1,000 feet.

Transition from this count to Emergency Procedures should be seamless, specifically for the high-speed malfunction scenario. Students should continue the Time Awareness count after Reserve drills to clear a pilot chute hesitation.

ONE THOUSAND	Maintain arch, eyes on horizon
TWO THOUSAND	
THREE THOUSAND	
"TWIST" THOUSAND	Rotate at the hips to the right so that your eyes can see the horizon at 3 o'clock, allowing the relative wind to collect a pilot chute hesitation
FIVE THOUSAND	
SIX THOUSAND	

Circle of Awareness

Used in freefall for time awareness, beginning the programming of the Student's "body clock". Repeating this process on subsequent jumps will eventually help students relax during the freefall.

HORIZON	Eyes to the horizon, promoting a good arch
GROUND	Mental snapshot of what the ground looks like
ALTI	Check your height.

Canopy Checks

Remind the student that just because the roar of the wind has disappeared, their job is not over. The parachute must be flown and landed like an aircraft, and the checklists here must be followed without the supervision of an instructor. Typical canopy flight time for a student is about four minutes.

SIZE and SHAPE	Not a streamer - Rectangular with most cells inflated
TWIST FREE	No twists in the lines, kick out if necessary (before releasing the brakes)
RELEASE BRAKES	Mid-blue webbing loops attached with velcro to the rear pair of risers; Peel up, pull down to release. Should the ripcord be stowed in the jumpsuit prior to releasing brakes?
STRAIGHT FLIGHT	Parachute flying straight, not turning
SLIDER DOWN	To within about 100mm of the connector links
END CELLS OPEN	all cells inflated
TWO FLARES	Two slow, controlled flares will correct most routine opening problems.
TARGET	Locate the Canopy Control Assistant (TA/CCA) and desired landing area. Follow the TA/CCA's instructions – or locate your jumpmasters if an off-drop zone landing is likely.

3.2 Landing the parachute

Target Assist with Arrow and Batons

Follow your arrow until your TA/CCA shows you the batons, then follow the batons
When batons indicate flare, bring toggles smoothly down to the full flare position in front of the thighs.

Example Target assist with Radio

Left ninety, left ninety
Right ninety, right ninety
Left, left (continuous)
Right, right (continuous)
Half brakes, half brakes
Flare… flare… flare

Unassisted landing

For an unassisted or rough landing bring the toggles to half brakes (about chest level) put your feet together and perform a Parachute Landing Roll (PLR)

Drag Recovery

If, on landing, your parachute remains inflated and starts to drag you along the ground, release either toggle and pull down in the other with both hands, just like climbing a rope - this will deflate the parachute. Then run around the back of the parachute to turn it away from the wind, and allow it to deflate.

Aircraft Runways

If you land on the runway, immediately drag the parachute clear of the airstrip.

Field Pack

Fasten toggles to the velcro on the rear risers and commence a field pack as you were trained. Either coil the lines up or daisy chain them, pile the lines into the centre of the canopy and pick it all up in your arms. Be sure to lift the pilot-chute and bag.

3.3 Your Key Words

In consultation with your course trainer, record the procedures you will be using for this course. Insert these procedures where you see their title shown ***like this***.

Main Deployment

Key Word	Description

Emergency Procedures

Key Word	Description

Time Awareness Count

Key Word	Description

Circle of awareness

Key Word	Description

Canopy Checks

Key Word	Description

3.4 Other Terms and Definitions

In addition to the key terms described above, Regulatory Schedule 50 and the Training Operations Manual provide industry standard definitions for many terms and acronyms.

This AFF Training Guide also uses terms and acronyms used in training AFF students, including the following:

TERM	DEFINITION / INTERPRETATION
BOC	Bottom of Container (location of stowed pilot-chute)
DOS	Dual Operation System (emergency cutaway/reserve deployment)
JM	Jumpmaster
PLR	Parachute Landing Roll
PP (or **PRP**)	Practice Pull (or Practice Ripcord Pull)
SOS	Single Operation System (emergency cutaway/reserve deployment)
XPP (or **XPRP**)	Extended Practice Pull (or Extended Practice Ripcord Pull)

4. The Accelerated Freefall Course – Stage by Stage

The following pages show, for each stage of the AFF training program, what the student will be caught and tips for the jumpmasters conducting the skydive. It is essential that the aspiring instructor has a very good knowledge of this section, both in order to pass the assessment, in order to maximise his/her effectiveness as an instructor and to ensure that the student is able to learn effectively and safely.

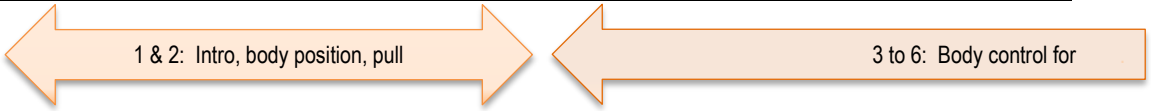
The aims of each stage, and the minimum manoeuvres which are required to be included in each stage, are described in the APF Training Operations Manual. Within this framework, individual Chief Instructors are permitted to structure the skydives as they wish.

The exact details of manoeuvres performed on each skydive may vary from one drop zone to another, and as noted in 1.10, especially where exit altitudes and other standard heights are higher or lower than normal. The heights shown in this AFF Training Guide are recommendations.

The details presented here represent one acceptable way of structuring the AFF student training program. However, candidates should be prepared to meet minor differences during their training course and on the drop zones on which they instruct. It is the instructor's responsibility to ensure that he/she fully understands the procedures required by the drop zone on which they are instructing.

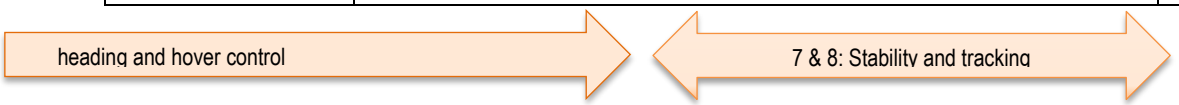
4.1 Summary, AFF Stages 1 – 9

Stage:	1	2	3	4
Title:	Orientation	Forward Movement	Hover control	Consolidation
Minimum Exit Height:	9,000’	9,000’	8,000’	8,000’
Jumpmasters:	Two	Two	Two	Single JM optional
Aims:	Overcoming the sensory overload period. Height awareness. General awareness (J/Ms, camera, ground references). Pull completed by 4,500 ft.	Heading awareness (ground reference). Arm and Leg awareness. Turning Pull completed by 4,500 ft.	Observation of spotting commands. Practice Pull at jumpmasters' option. Heading maintenance. Hover control. Solo pull completed by 4,000 ft.	Observation of spotting commands. Practice Pull at jumpmasters' option. Heading maintenance. Hover control. Longer solo freefall time. Solo pull completed by 4,000 ft.
Minimum manoeuvres:	Extended Practice Pull. Practice Pull. Single height awareness check.	Extended Practice Pull. Forward and backward trim. Introduction to turns. Single height awareness check.	Arm and leg trim confirmation. Height awareness check at 5,000 ft.	Arm and leg trim confirmation. Height awareness check at 5,000 ft. Wave and pull.
Skills:	Circle of awareness Deployment height awareness check	Leg awareness (heel clicks, trim or backslide) Forward movement (Delta) Turn(s)	Hover control Heading maintenance General Awareness	Advanced Recovery Technique
Awareness check	5,500’	5,500’	5,000’	5,000’
Pull complete:	4,500’	4,500’	4,000’	4,000’
Notes:	JM2 pulls reserve at 2,500’ if no pull. 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)		Similar jumps with similar aims, but with emphasis on improving hover control and eliminating any faults or problems encountered on the previous jump.	
Solo descent:				



These are recommended heights (refer to TOM for regulated heights).

5	6	7	8	9
Turns and Docking	Consolidation	Backloops and Tracking	Fast and slow fall, tracking consolidation.	Clear and pull
8,000’	8,000’	8,000’	8,000’	Recommended 4,000 to 4,500’
One	One	One	One	
Observation of spotting procedure. Single jumpmaster exit (linked exit at J/M's option). 360° turns. Forward movement and docking Pull completed by 4,000 ft	Spotting, student gives directions to jumpmaster. 360° turns. Forward movement and docking. Pull completed by 4,000 ft.	Spotting, student gives commands directly to the pilot. Sub-terminal control. Backloops. Tracking. Pull completed by 4,000 ft.	Spotting unassisted. Fast and slow fall. A straight track. Pull completed by 4,000 ft.	Orientation for exits at lower height. Pull completed by 3,500 ft.
360° turn followed by pin, then opposite 360° turn and pin. Awareness check at 5,000 ft. Wave and pull	Solo exit. Turns and pins as per stage 5, (with increased separation). 180° turn, wave, and pull.	Dive exit. Backloop. Locate and track toward drop zone. Stop track by 5,000 ft to flare, wave and pull.	Poised exit. Fast fall to jumpmaster's level. Slow fall to jumpmaster's level. 180° turn and straight track. Flare, wave and pull.	Spotting unassisted. Poised exit. Three to five second delay.
360° turns Forward movement using legs Hand flash Wave off	Solo exit 180° turn	Recovery from Instability Tracking	Fast/Slow fall Consolidate tracking	Sub-terminal opening
5,000’	5,000’	5,000’	5,000’	
4,000’	4,000’	4,000’	4,000’	3,500’
Similar jumps with similar aims, but with emphasis on improving forward movement and turns, and eliminating any faults or problems encountered on the previous jump.				Should not be attempted if exit technique is not perfected.
	The DZSO may, at her/his discretion, allow a student to make a solo descent between stages six, seven and eight for the purpose of consolidating and polishing manoeuvres prior to advancing to the next stage.			



4.2 Components of an AFF Stage

The components of an AFF stage are contained in Sections 6 to 9 of this document, with details for specific stages following. (Some call this the “Walk of Fame”, and should always remain the same)

6) Before the freefall
    a. Prior to boarding
        i. Complete stage Briefing – See Section 5
        ii. Manifesting
        iii. Gear up
        iv. Gear Check
        v. Final rehearsal and Dirt dive with gear
    b. Emplaning
        i. Inside the aircraft
        ii. After take-off
    c. Jump run to exit
        i. Left hand Cargo Door
            1. Jump run
            2. Climb out
            3. Outside
            4. Setup
            5. Exit Count
        ii. Right hand Cessna
            1. Jump Run
            2. Climb out
            3. Outside
            4. Setup
            5. Exit Count
7) Freefall
    a. After exit
    b. Freefall
8) Parachute opening to landing
    a. Identifying a good parachute
    b. Flying the parachute
    c. Landing the parachute
9) After the landing
10) Debriefing – See Section 10 of this document

This section examines each component before assembling them into a Stage 1 skydive.

Two styles of exit are covered here: the Left hand Cargo Door (Caravan, XL, Islander, Nomad, Otter) and the Right hand Cessna exit (C182 and similar).

Jumpmaster 1 (“JM1”) is located on the main deployment side (Student’s right). They are the “Inside” jumpmaster for a left hand exit, and the “outside” jumpmaster for a right hand exit.

Notes for the Student appears in this format	Jumpmaster 1 notes appear here	Jumpmaster 2 notes appear here
Key Words	Notes for both jump masters are shown like this	

Some drop zones have a specific division of labour for two-jumpmaster jumps. Your drop zone may have unique procedures; these are included as a guide.

4.3 Before The Freefall

Prior to Boarding the Aircraft

i. Gear up

Student	Jumpmaster 1	Jumpmaster 2
You will be assisted to Gear Up by your jumpmasters. Once geared up, remain with your jumpmasters and follow their directions	• Check training certification or currency requirements • Select rig to suit age and/or weight. • Jumpsuit tight unless student of big build. (Dress for Success) • Ask student about contact lenses, glasses, colour blindness and general health. • Helmet and goggles fitted correctly. Place goggles around neck. • Correct footwear - no hooks. **1. Rig check** • Packed ready for live drop by licensed packer. Check main packing log if necessary. • AAD on and adjusted. Take note of type and firing height of AAD. **2. Rig fitting: Adjustment** • Leg straps firm and stowed (confluence point low on hips). Check that they are not so tight that JM cannot take a grip. • Main lift web adjusted, excess stowed above friction adaptor not under. Side adjusters firm. • Chest strap firm and locked at mid-chest level, definitely not higher. Altimeter visible and firm.	

ii. Gear Check

Student	Jumpmaster 1	Jumpmaster 2
This check is performed by your jumpmasters.	Front • 3-Rings correctly routed and positioned near collar bone. • Cutaway cables showing 50mm to 100mm through the locking loop. • Risers secure. • Chest strap balanced about mid-chest and threaded properly • AAD height correctly set and turned on. • Ripcord: Main ripcord secure in pocket and correctly fitted (inboard). • Swage OK with suitable excess showing. • Throwaway: Pilot Chute secure. Mouth of BOC pouch not loose. • SOS: Yellow handle securely velcroed. Cables correctly routed. • DOS: Cutaway pad secure in pocket. Reserve ripcord secure in pocket. • Swage OK. • Lift web adjusters secure and correct. • Side adjusters tight. • Leg straps secure and snaps functional. • Helmet and goggles fitted correctly. • Check radio functional • Correct footwear.	

	Back • Reserve pins and lanyard secure (cable clear, no pigtail). • Tuck tabs/Velcro sealed and secure. • Main pin and AAD swage correct and secure. • Closing loop not worn. Advise or confirm rig number to Manifest. If you are interrupted during the equipment check, start again from the beginning. More than one student on the load? Check arrow, TA/CCA, radio allocation.

iii. Final Rehearsal

Student	Jumpmaster 1	Jumpmaster 2
Confirm expected spot and target	• TA/CCA assigned • Expected approach plan • Important heights • Final approach direction	Canopy control

iv. Dirt Dive with gear

Student	Jumpmaster 1	Jumpmaster 2
Try to visualise the jump as realistically as possible. *Make your actions realistic and positive.* *Think ahead* *If you lose track of the skydive look at your altimeter, the heights will tell you what to do next.*	• Conduct dive as per training, in real time, with a JM indicating heights. • Reminder to arch if altimeter slack or not visible (chest mount). • PP action for goggle or altimeter adjustment if necessary. • Confirm Emergency procedures. • Revise off drop zone procedure, advise of JM's canopy colours • A poor dirt dive may indicate that the student should not proceed. You should make this call now if required.	

Emplaning and take-off roll

i. Inside the Aircraft

Student	Jumpmaster 1	Jumpmaster 2
STOP excess movement. *LOOK after handles - fold your arms across your chest.* *LISTEN to your jumpmasters' instructions.* *Obeying these three rules reduces risk in the aircraft*	• Seat students according to DZ procedures STOP Careless movement of student. LOOK Check students gear and altimeter LISTEN Review in your mind the DZ's procedures related to aircraft emergencies • Confirm with pilot if an Observation Pass is required.	

Review your drop zone procedures for aircraft emergencies.

ii. After take-off

Student	Jumpmaster 1	Jumpmaster 2
At approximately 2000' your jumpmasters will point out the Target and the Target control system that you will follow after your parachute has opened. *If directed to move by your jumpmasters always turn with your face to the door, never turn with your back to the door.* *When directed by your jumpmasters - take off your helmet - fit your goggles - refit your helmet.*	• Locate Target and TA/CCA • Point out landmarks. Ask student which way arrow is pointing. • Check your altimeter against student's, particularly at key heights such as pull height • Movement. Control your student, watch how they move. • Goggles. Check goggles fit, explain demisting where necessary. • Check helmet secure and radio on at appropriate altitude.	

4.4 Jump Run to Exit – Left hand Cargo Door

1 Jump Run

Student	Jumpmaster 1	Jumpmaster 2
Kneel at attention - not sitting on your heels. Palms to chest, little fingers touching.	• Kneel at attention. • Both grips - "I've got you" • Remind student to look to JM2 for instructions and to put hands together	• Check TA/CCA and target before climb-out.
Jumpmaster will commence the climb-out by saying 'LET'S GO'.		• Use "Let's Go" as climb-out command

2 Climb-out

Student	Jumpmaster 1	Jumpmaster 2
	• JMs control climb-out. • Always anticipate that a student may fall off the aircraft. Be ready to go at any time.	
KNEE WALK to the door. *Look to where you are going to place your hands and feet.* *COMMENCE CLIMB-OUT. Lead off left foot if exit position requires you to stand up.* *You will notice as you climb outside the aircraft is that it is noisy and windy. This is normal, as the aircraft will be flying at about 75 knots at the time.* *All key words, eg: "HEAD BACK" are said out loud and all actions positive and precise.*	• Your (diving) exit position must allow you to pivot around rather than be slammed into the door. • Lift/aid student into position. • Keep left foot in lower of door frame. • Assist with foot placement of student - carefully. • Check student's hand placement (but do not let go of student). • Straighten student's right leg if necessary.	• Lift/aid student into position.

3 Setting up the exit position

Student	Jumpmaster 1	Jumpmaster 2
Stand up straight - shoulder to shoulder with Jumpmaster 2. *Hands together - place on the inside top edge of the door.* *Chest against hands.*	• JM1 (diving) • Keep both grips • Watch student after OK. • Ensure you are visible to student so he/she can check with you.	• JM2 (floating) • Overlap and behind student. • Check JM1 ready. Eye contact

Pelvis arched into the aircraft. *Ball of right foot standing on the edge of the door sill.* *Shoelaces of left foot against aircraft below the door sill.*		
SAY ALOUD - "CHECK LEFT" Eye contact wait for "OK" from Jumpmaster 2.		• "OK". • Watch student after OK.
"CHECK RIGHT" - Eye contact - wait for "OK" from Jumpmaster 1.	• "OK". • Watch student after OK.	
Commence Exit Count.		

4 The Exit Count

Student	Jumpmaster 1	Jumpmaster 2
You have two methods of telling your jumpmasters when you are letting go of the aircraft: **What you say** - the exit count itself - make it loud. **The actions** - make sure they are precise and keep the movements flowing.	The exit is an important aspect of any AFF jump. Student performance will be better if it occurs when he/she is ready. There must be no possibility of legal liability associated with an exit before the student is ready.	
"HEAD BACK" Lift head up "OUT" Left leg swings back "IN" Left leg swings in "GO" Left leg swings out, launch into the airflow "HARD ARCH" Pelvis pushed forward. Arms and legs straight with toes pointed.	• Watch leg cadence. • Go with student. • Try not to let arms extend, pull head into student Container if necessary. • NEVER, NEVER let go! Stay on! This is not RW	• Front float exit: Leave just before student • Pick up arm immediately. • Get your own air. • Turn formation to assist JM1 if exit is steep. • Release if exit has funnelled and not recovered within 5-7 seconds. • Release immediately if chest to chest with JM1 and not helping
	• Turn student into sun if camera flyer with you.	

4.5 Jump Run to Exit - Right Hand Door – Cessna

1 Jump Run

Student	Jumpmaster 1	Jumpmaster 2
Knee to knees with JM1.	• Note loss of altitude on slow exits from small aircraft. (A 10,000 foot climb out can be a 8,500 foot exit.) • Always expect that a student may fall off the aircraft. Be ready to go at any time.	
	• Knee to knees with student. JM1 spotting, check TA/CCA, check Target • "Power off" - JM1 climbs out.	• Both grips • "I've got you".
JM2 will initiate the climb-out by saying "Let's Go".	• Jumpmasters control climb-out.	• Use "Let's Go" as climb-out command. • Move efficiently round pilot's seat

2 Climb out

Both hands on door frame *Right foot to step, left hand to strut.* *Right hand to strut, left foot crosses over front of right foot to wheel.* *Note that on a step-only aircraft, the details of the climb out will be different.*	• Take legstrap grip as soon as the student starts to climb out	• Lift/Aid student into position.

3 Outside the aircraft

As you climb outside the aircraft you will notice that the 75knots of airspeed makes it noisy and windy. *Key words are said out loud and all actions positive and precise.*	• Overlap and behind student • Acknowledge JM2 check (eye contact)	• Foot placement should ensure that you are able to pivot over the step/wheel. • Check JM1 ready. Eye contact • Watch student after OK.

4 Setting up the exit position

Lean forward, chest on strut, unweight right foot *Say aloud "Check left" - wait for "OK"*		• "OK" • Stay low, head down near bottom of student's Container
Say aloud "Check right" - wait for "OK" *Commence exit count*	• "OK"	

4.6 Exit sequence

You have two methods of telling your jumpmasters when you are letting go of the aircraft: ***What you say** - the exit count itself - make it loud.* ***The actions** - make sure they are precise and keep the movements flowing.*	The exit is an important aspect of any AFF jump. Student performance will be better if it occurs when he/she is ready. There must be no possibility of legal liability associated with an exit before the student is ready.	
"HEAD BACK" *Lift head up* *"OUT" ("UP")* *Right leg swings back* *"IN" ("DOWN")* *Right leg swings in* *"GO" ("ARCH")* *Right leg swings out, launch into the airflow* *"HARD ARCH"* *Pelvis pushed forward.* *Arms and legs straight with toes pointed.*	• Poised exit. • Leave just before student. • Pick up arm immediately (if not already gripped). • Get your own air - Turn formation to assist JM2 if exit is steep. • NEVER, NEVER let go! Stay on! This is not Relative Work	• Watch leg cadence: • Go with student • Try not to let arms extend, pull head into student Container if necessary. • Release if exit has funnelled and not recovered within 5-7 seconds. • Release immediately if chest to chest with JM1 and not helping
	Turn student into sun if camera flyer with you	

4.7 The Freefall

A After the exit

Student	Jumpmaster 1	Jumpmaster 2
	• Shakes when necessary. • Monitor right hand and legs. • Do not free arm unless assisting with PP hand position or signalling (e.g. fist). • Think about your recovery technique. It can happen even after hundreds of good jumps.	• Shakes when necessary. • Monitor left hand and legs. • Do not free arm unless signalling (e.g. fist) • If you have to release the student, get back on and help JM1

The exit/beginning of your skydive is like no other physical sensation you have ever felt. You will not feel any falling sensation. The hard arch and upper level circle of awareness are most important at this stage. It will take approximately 12 seconds before you reach maximum falling speed of 190kmh ("terminal velocity") in the hard arch position.	• If shaking a student is NOT making a difference - STOP shaking! • Adjust fall rate to assist camera flyer if necessary. • Do not free arm an early student: • You will have very little control in the event of a sudden movement. • Some drop zones prefer that, apart from shakes, all signals should come from JM2.	
Respond to signals: ***SHAKE**. If either jumpmaster shakes you vigorously - HARD ARCH - straighten legs, point toes.* ***POINTING FINGER**. If a jumpmaster points at your altimeter - LOOK AT IT AND READ IT.* ***FIST**. If you are shown a fist from either Jumpmaster – Commence the* **deployment procedure** *for your main parachute.*	• Make signals clear and concise if you give them • Give the student time to see them • Check altimeter when student commences any Task	• Make signals clear and concise if you give them • Give the student time to see them. • Check altimeter when student commences any Task • Give the deployment signal (Fist) if low, bad spot, canopy below, etc.

B During the freefall

Student	Jumpmaster 1	Jumpmaster 2
Height Awareness is critical throughout your entire skydive. You must know what your height above the ground is in order to correctly carry out the procedures detailed on this page.	• As for the student, height awareness is vitally important for jumpmasters, as well as eye contact at key times. The audible warning device is a useful hard-deck warning. • Check the spot in freefall, just in case	

Upper Level Circle of Awareness

Student	Jumpmaster 1	Jumpmaster 2
Circle of awareness *Repeat until altimeter reads 9,000 feet or as briefed by your instructors*	• Observation of student • Point at altimeter if necessary - however don't let go if you have a student that is difficult to control	• Observation of student • Point at altimeter if necessary

Upper level Awareness Checks (Practice Pulls)

Student	Jumpmaster 1	Jumpmaster 2
EXTENDED PRACTICE PULL *example:* *- 'LOOK' - 'REACH' - 'WAIT' (for shake from jumpmaster)*	• Ensure right hand is on deployment system. Move it if necessary. • Eye contact with JM 2 when satisfied	• Check left hand positioning, parallel to ground, not on head • Check legs • Eye contact with JM1 when satisfied
Return to Arch	• Shake to conclude Extended Practice Pull	
'PRACTICE PULL' *Example:* *- 'LOOK' - 'REACH'* *Return to Arch*	• PPs tell you that your student is out of sensory overload and can see and read the altimeter. • Take note of the height at which the student commences the exercise. • Get in good position to respond to student's lower level awareness checks • Stay low to avoid being hidden behind student's arm	

Lower Level Circle of Awareness

Student	Jumpmaster 1	Jumpmaster 2
'LOOKING' 'ALTI' - 'LOOKING' - 'LOOKING' - 'ALTI' *You can see your jumpmasters while performing the lower level Circle of Awareness* *Repeat until altimeter reads 6,000 feet*	• Maintain a grip with both hands • Make observations which may be relevant for the debrief. • Be prepared for anything unusual.	

Lower Level Awareness Checks (5,500')

Student	Jumpmaster 1	Jumpmaster 2
CHECK LEFT' *- Wait for signal, then return it under your arm*	• Shake/Pinch arm if no check	
CHECK RIGHT' *- Wait for signal, then return it under your arm* *You will now be at approximately 5,000 feet*		

4.8 Main Deployment

Student	Jumpmaster 1	Jumpmaster 2
Main Deployment Sequence	• Must ensure main is activated (pull completed) by 4,500 feet. • Release immediately the main is activated to increase the airflow for the pilot-chute and clear the area • If student has gripped ripcord handle and frozen, hook the cable at the top of the housing. • On ripcord systems, you can also activate by pulling the AAD cable under the main flap.	• Stay on until pilot chute and bag lifts off. • If Pilot Chute hesitates: - tilt the student - lift or punch bag as required Keep your hands out of the lines. • Do not give student line twists by hanging on too long. • Pull reserve if no main activation by 2,500' or in a horseshoe situation.
Time Awareness Count	• Once the pilot chute and bag are clear, jumpmasters begin their own pre-planned separation and opening.	
	• Open as close to the student as is safe.	• Deploy a bit lower than student and JM1
	• Both JMs should note any pilot-chute hesitation and over-fast or hard openings, Report as appropriate. • This is not the time for stand-ups, freestyle or goofing off. You still have an obligation to your student.	

Refresh: The Priorities Of Every Skydive

1. Pull the Pilot-chute (or ripcord)
2. Pull at a safe altitude
3. Pull stable (if possible. If not remember priority 1 and 2)

4.9 Parachute Opening To Landing

Identifying a good parachute

When your main parachute opens, you will instantly notice a decrease in wind speed and the associated roar of freefall.

On opening, you must immediately look up and assess the parachute's condition, to ensure that it meets the description of a good parachute listed in "Canopy Checks".

Student	Jumpmaster 1	Jumpmaster 2
Canopy Checks	• Check student's canopy and brake release. Note any routine opening problems (line twists, end cells, slider up)	
Target Assist	• Assess if off-DZ landing procedure is needed • Stay near the student until you're sure the student is following the TA/CCA. • Be prepared to lead student to JM2 for off-DZ landing site if necessary.	• Check TA/CCA is operative - be prepared to land at Target and take charge • Stay near the student until you're sure the student is following the TA/CCA. • Be prepared to select off-DZ landing site if necessary. • If off-DZ landing occurs, make sure you are visible to the student, e.g. lie down when student is right over the top.
	• Continue to monitor student and TA/CCA throughout descent. • Assess if off-DZ landing procedure is needed. • Be prepared to chase your student. • Know how to "gain height" using rear risers, brakes etc.	
Drag Recovery ***Runway Avoidance*** ***Field Pack***	• Check for the ripcord. • Make sure all equipment is secure if riding on a pick-up vehicle. • Ensure all equipment is accounted for and the radio turned off. • Be sure the student receives a good debrief including video if possible (although check the student's recall first to help train their awareness ability). • Complete the student's logbook giving all pertinent Details. ("Good jump - passed for stage 2" is not satisfactory or useful)	

4.10 Situations you may encounter and your required actions

It is important that you remain alert for exceptions to a smooth skydive. The following sections list some common situations and describe a best-practice response.

4.11 Situations in the Aircraft

If you observe the Stop, Look, Listen rules related to your actions in the aircraft, you can eliminate or solve the problems related to aircraft that are listed below. JM 1 should normally take control in an emergency situation.

Aircraft failure

Including power failure, aircraft damage, catastrophic structural failure, fire in aircraft.

Student	Jumpmaster 1	Jumpmaster 2
Listen to your jumpmasters and follow their directions	• Know your DZ's procedures and carry them out. Procedures may vary according to aircraft height: below 1,000 feet, 2,000 feet, 3,000 feet, above 3,000 feet.	

Parachute open in the aircraft

Immediately Contain and smother the parachute to prevent the canopy from escaping from the aircraft.	• Take action to reduce risk. • Reseat student. • Ensure parachute restrained. • Do not open door. • Land aircraft.

Parachute escaping from the aircraft

Immediately follow the parachute out of the aircraft - do not hesitate, this is a life threatening situation.	• Assist jumper to exit and be prepared to order emergency exit.

Parachute opens during climb out

	• Assist student to exit. Observe outcome. At least one jumpmaster must exit and accompany student.

Student Refusal to Jump

	• Offer reassurance. Observe outcome. Never force a student to exit against their will. At least one jumpmaster must accompany student in the aircraft until safely landed in the aircraft. Ensure pilot is informed. • AAD is switched off, seat restraint and helmet on for landing.

4.12 Problems during Freefall

The following table will give you examples of problems/situations you may encounter during freefall. Read carefully, your jumpmasters are there to look after you, but it is your jump.

You have an unstable exit

Student	Jumpmaster 1	Jumpmaster 2
Hard arch - Straighten legs - Point toes	• Both jumpmasters shake student. • JM2 releases after 5 - 7 seconds (or when chest-on-chest) • Recover Technique	

Either jumpmaster shakes you

Student	Jumpmaster 1	Jumpmaster 2
Hard arch - Straighten legs - Point toes	• Know your DZ's procedures and carry them out. Procedures may vary according to aircraft height: below 1,000 feet, 2,000 feet, 3,000 feet, above 3,000 feet.	

One jumpmaster releases you in freefall

Student	Jumpmaster 1	Jumpmaster 2
Continue on as normal	• Do not let go	• Get back on and continue as normal

Both jumpmasters release you in freefall

Student	Jumpmaster 1	Jumpmaster 2
Main deployment procedure	• Attempt to re-dock. • Beware of the student pulling (do not fly above student) • Open your parachute at a safe and legal height (a parachute being opened is an excellent signal to a student). • Beware of AAD	

A jumpmaster points at your altimeter

Student	Jumpmaster 1	Jumpmaster 2
Look at and read your altimeter	• Get ready to issue pull signal	

A jumpmaster shows you a clenched fist

Student	Jumpmaster 1	Jumpmaster 2
Main deployment procedure	• Be prepared to pull for student.	

4.13 Deployment and Low Speed Parachute Problems

Parachutes will normally open fully. However, you must be prepared to deal with any problems. The following Table shows how to deal with minor problems.

Jumpmasters can't help in these situations but should be observing the situation and the student's actions. It is essential that Jumpmasters are completely conversant with the teachings involved in all malfunction and emergency situations. Height Awareness is critical in all situations.

Line Twists

You feel the parachute open, Look up and see a full size parachute, but the lines are twisted.

Pull the risers apart and kick in the opposite direction of the twists.

End Cell Closure

You feel the parachute open, Look up and see a full size parachute but the end cells are collapsed

Flare once - look up – check alti (if necessary) flare twice - look up– check alti

Slider Up

You feel the parachute open, Look up and see a full size parachute but the slider is not down

Flare once - look up– check alti (if necessary) flare twice - look up– check alti

Not flying straight

You feel the parachute open, Look up and see a full size parachute but the parachute is not flying straight

Flare once - look up– check alti (if necessary) flare twice - look up– check alti

Unable to steer

You feel the parachute open, Look up and see a full size parachute but the steering toggles are inoperative

As briefed - possibilities are either:

- KISS - can't steer, use the reserve
- *Steer using rear risers (not usually recommended if brake(s) locked on)

Line twists + Slider up + End cell closure

You feel the parachute open, Look up and see a full size parachute but the end cells are collapsed, the slider is not down and the lines are twisted

Clear line twists first then flare once - look up - flare twice if necessary.

Decision Height - "You Must Have A Good Parachute By 2,000 Feet"

Two Canopies Out

You feel the parachute open, Look up and see two inflated canopies.

As briefed - possibilities are either:

- Parachute deflated below you – smother between legs, land under inflated canopy.
- Canopies Touching – (Biplane or Side-by-Side) Fly larger canopy, gentle toggle inputs, perform PLR.
- Canopies Apart – (Downplane) Emergency Procedures, cutaway main, land reserve, perform PLR.

4.14 Routine opening problem becomes a malfunction

Corrective action does not resolve problem

You are unable to resolve line twists, end cell closure, damage to canopy, ability to steer

Perform emergency procedures above nominated height.

4.15 High Speed Problems and Malfunctions

The problems detailed on this page are rare but you must be prepared to cope with them in the right way. Remember, if you do not have most of a parachute above you, you will be travelling at high speed.

At pull time you cannot locate the ripcord

Student	Jumpmaster 1	Jumpmaster 2
Make one more focussed attempt, executing your drill perfectly, then Commence Emergency Procedures	• Replace ripcord if possible. • Be prepared to pull for student	• Stand by

Hard Pull

Student	Jumpmaster 1	Jumpmaster 2
Make one more focussed attempt, executing your drill perfectly, then Commence Emergency Procedures	• Assist if possible • Be prepared to pull for student	• Stand by

No opening shock after time awareness count – Total malfunction, bag lock, streamer

Student	Jumpmaster 1	Jumpmaster 2
Emergency Procedures	(Tracks after main activation)	• Punch main Container • Pull reserve by 2,500 feet

Horseshoe Malfunction

Student	Jumpmaster 1	Jumpmaster 2
Emergency Procedures	(Tracks after main activation)	• Try to contain horseshoe and keep the student flat/stable. • Pull reserve by 2,500 feet

4.16 Emergency Procedures

There are various reasons why you may have to activate your reserve parachute. You must be competent with your emergency procedures as your life may depend on it. Know them so if it is necessary to use them, you will be prepared.

Continue to practise this drill. Your jumpmasters may ask you to demonstrate this at any time.

After deciding to activate your reserve parachute, discard the main ripcord, steering toggles if you have them in your hands, then commence your Emergency Procedures.

Your Reserve Parachute

Your reserve parachute will be the same shape as your main parachute. It will probably be made up of seven cells. You should fly it just as you have been taught for the main parachute. Carry out normal procedures for flying and landing the parachute:

'TOGGLES' - Note that these may not be mid-blue, as they are on the main

'TURN'

'TARGET'

'TA/CCA'

4.17 Parachute Landing Hazards

You should land without difficulty in the designated landing area. However, you must be prepared for any of the unusual landing shown below.

Situation	Student Action	Jumpmasters
You cannot find the Target	Look for jumpmasters' parachutes and follow them	Position yourself where you can be seen.
You cannot see which direction the TA/CCA is indicating you fly your parachute	Head towards the Target until you can see the directions the TA/CCA is giving you.	
You are going to have an off-drop zone landing	Locate your jumpmasters' parachutes - head towards the landing site they select - one jumpmaster will act as TA/CCA and guide you in to land.	JM2 selects landing area JM1 get student to follow you if possible. Ensure you are there to assist. If the student lands off the DZ, so should you.
You find yourself heading towards a landing hazard	Look for a clear area. Steer away and head for it.	
Landing unassisted by TA/CCA or Jumpmasters	Aim for clear area. Turn in direction of clear area No low turns Feet and knees together for a PLR Hands with toggles level with shoulders (half brakes)	As with all of your students' landings - observe
Tree landings	If you cannot avoid the tree Use PLR Protect yellow handle Protect your face with your hands Cross your feet If suspended, hang on if you can reach a branch, wait for assistance.	Try to ensure you land nearby to be able to assist. Students have been injured trying to get out of trees by themselves.
Power lines	If you cannot avoid power lines - Use PLR If suspended make sure power is off before touching the ground or anyone on it.	Try to ensure you land nearby to be able to assist. Do not touch a suspended student or any suspended equipment

	Note: Power lines run parallel to roads and from roads to buildings. Look for the poles.	
Water landings	If you cannot avoid a body of water - Face into the wind and Use PLR.	Try to ensure you land nearby to be able to assist.
	Take a deep breath	Be extremely careful going into water to assist a student.
	Swim or wade to shore	
	Be prepared to lose your equipment	A ram-air canopy is best removed from water by pulling from the tail.
	Follow water landing procedure taught in your course.	
	These situations are far more likely following an emergency aircraft exit or when conducting an off-DZ landing.	Know the hazards around the DZ

5. Lesson Plans

The lesson plan is an essential aid for the Instructor. It sets out in summary all that you are going to teach the student. A carefully compiled lesson plan, properly used, will ensure that nothing is overlooked during your briefing.

Details of how to go about preparing a lesson plan are found in Part 10 of the APF Instructor Guide. Before you start working as an AFF instructor, you will need to compile a lesson plan for each stage.

Following is an example of a lesson plan for Stage One. Lesson plans will differ from one drop zone to another, according to the routines used on the particular drop zone, and from one instructor to another, according to your own style of teaching, and the aspects you most need to remind yourself of.

Keep in mind that Chief Instructors have the right to dictate what is taught and how it is taught on their own DZ. Your lesson plans must reflect your Chief Instructor's wishes.

The best lesson plan in the world is effective only if you use it: you must have it available, and you must be familiar with it.

A sample Briefing Plan template follows. You will need briefing plans for all stages.

Sample Briefing Plan

Preliminaries

Classroom/Teaching Aids/Duration approx 20 minutes

Whiteboard, Stage 1 DVD, Training harness/bra, Rotating Table, Altimeter, Suspended harness, Student rig

Introduction

Welcome – introduce yourself
Check student logbook (check licence, currency, competency, general health)
Check student Flight plan (all student descents after Stage Two should attempt a flight plan even if still being assisted)

- Aim/Purpose of this Brief is to progress through the AFF Table
- Reason for this brief is to learn the new skills
- Objective/ Standard which needs to be achieved

Revision

Relevant to Briefing (exits, malfunctions, canopy control, any weaknesses identified from previous jumps)
Canopy Inspection
Freefall and Canopy Emergency Procedures

Aims and Sequence

Explain AFF aims of the stage and cross relate to sequence of stage.
e.g. Overcome sensory overload: Blank bit, stress, a few seconds – Exit count/Upper level awareness check

AFF Stage One

Aims	Sequence
Overcome Sensory Overload	Jump Run > Climb-out > Outside > Setup > Exit Count
	Upper level Awareness Check
Height Awareness	Extended PP JM shake
	1 PP
	ALTI
General Awareness	LEISURE TIME

Complete Pull By	Maintain height awareness, Camera flyer ☺ ALTI 5,500 Feet Main Deployment Sequence Canopy Checks (look out for other canopies) Canopy control - TA/CCA Landing > Drag Recovery	Lower Awareness check	JM2, JM1 tongue

Complete Demonstration of Stage to be briefed

Use DVD, pictures, doll, or another JM to demonstrate. (Ensure that the demonstration is of a high standard)

Break down briefing into new skills and confirm in stages

Explanation – of new skill and signals	
Demo – of new skill and signals	Use DVD, pictures, doll, or another JM to demo
Practice new skill using signals	Repeat as necessary until of good standard

……..

Explanation – of new skill and signals	
Demo – of new skill and signals	Use DVD, pictures, doll, or another JM to demo
Practice new skill using signals	Repeat as necessary until of a good standard

Consolidate with complete practice

Confirm stages, linking as below: (initial practice should be in standing position before full rehearsal on Table)

- Jump run, climb-out and exit count
- XPP, PP, Alti checks and signals
- Lower awareness check through to opening shock
- Canopy Inspection and TA/CCA

Table Work/Evaluation

On Table only when standing rehearsal is good, don't wear out student (rest periods)

Confirmation

- Restate aim of Brief
- Confirmation of Learning – Full Rehearsal on Table
- Confirming questions – Pause, Nominate (Repeat as necessary)
- Manifest/Gear Up/Assign TA/CCA
- Check winds/emplane

Improvements

List improvements which could be made

Could mention Wind resistance on climb-out and Goggles/alti adjustment (PP position)

6. Instructor Powers and Responsibilities

6.1 Operational Regulations and Regulatory Schedules

Review the Operational Regulations Part 14 to find Instructor and Coach Privileges.

6.2 APF's industry standard Training Operations Manual

Review the TOM sections covering AFF: 2.4, 3..1 to 3.4, 3.6, 4.1 and Appendix E.

6.3 Obligations

- Review a student's past performance and carry out remedial training and/or revision.

7. Acting as Canopy Control Assistant (CCA)/Target Assistant (TA)

7.1 Identify

- Know the colour of student rigs on the load.
- Know the exit order where possible - 10,000 ft and/or 12,000 ft.
- Know which JMs are with which students.
- Are any other students on the load?

7.2 Response

- Get arrow moving to check response time of student (usually the same when you go to batons).
- If no response to arrow, try the other arrow if there are two.
- Which is my student? - Turn the arrow.
- Keep any radio commands clear and simple

7.3 Flight Control

- Keep student upwind - going back and forth across wind line where possible.
- Keep student near largest clear area.
- For off-DZ landings try to direct them to JM's canopy or landing area.
- Do not turn the student 180' with batons.
- Consider second load opening whilst first is still in air.

7.4 Pattern and Final Approach

- Downwind leg to side of Target not over top.
- Stick to the heights Taught to the students
- e.g. 1,000 ft downwind past target, 500 ft onto base leg
- 200 ft turn onto final
- Consider aircraft landing whilst giving student canopy control assistance near runway.
- Avoid turning the student's back to the Target.
- Better to land short than to overshoot.

7.5 Flare

- Flare earlier rather than later.
- Tell JMs about canopy control.

8. Freefall Signals

Communication in freefall is conducted mainly through the use of various hand signals. These signals must be learned thoroughly by the student so that he/she can react immediately after being shown them in the air.

Shake or **Thumbs Down** for single JM stages

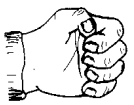
Hard arch. Head up, straighten legs and point toes.

Fist

Immediate main ripcord pull - “NOW”

‘LOOK’ - ‘REACH’ - ‘GRIP’ - ‘PULL’

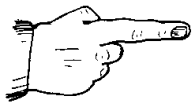
Count ‘1,000’ - ‘2,000’ - ‘3,000’ - ‘etc



Point

(at altimeter) Look at and read altimeter

(forwards) commence forward movement (Stage 2)



Turn

Commence turn as rehearsed

(rotate forearm and point in direction of turn)

Beckoning Hands

Forward movement to single JM

Tracking

Point in direction required

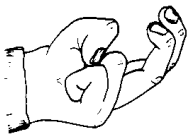
Two Straight Fingers

Straighten legs incrementally

Two Bent Fingers

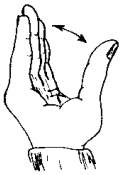
Bend legs slightly

In Stage 2, this signal may be used to indicate “Commence backward movement”



Heel Clicks or **Knees Together**

Usually click twice

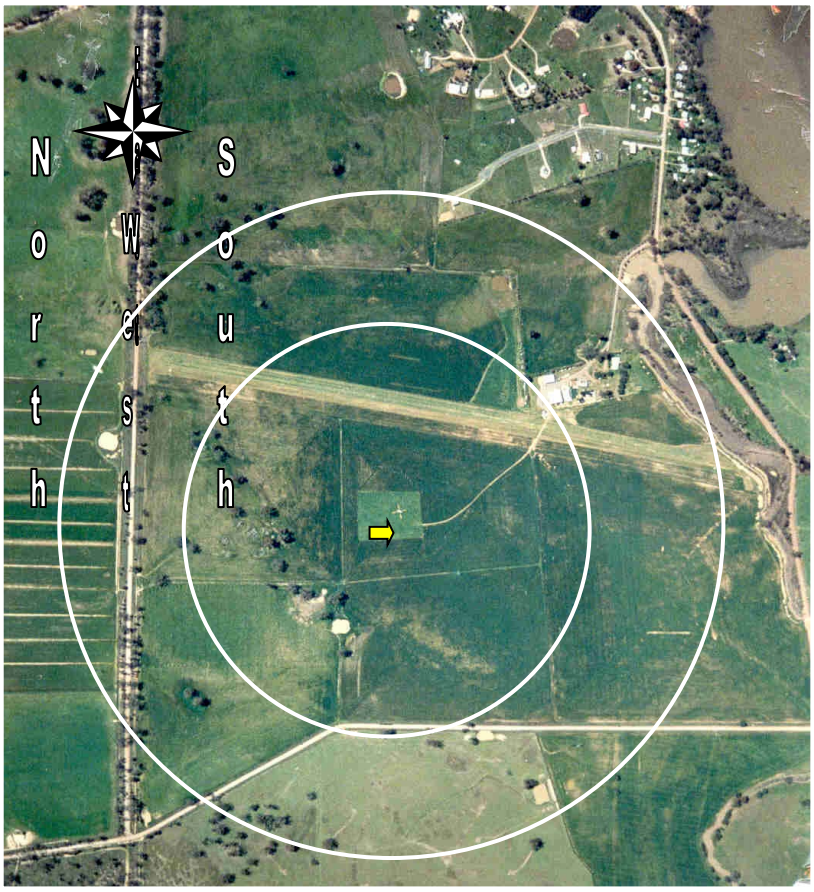


9. Spotting

These skydives all include requirements for spotting. Your Drop zone may have a TOM which does not include a spotting component; it may be inappropriate for larger drop zones and loads.

Advice on spotting is found in the “Certificate Class B Training Guide”. Familiarise yourself with this section, and be prepared to add value to it with your student briefings.

Sample Flight Plan



1. Taking into consideration the upper and lower winds, mark your expected aircraft run in direction

2. In relation to the aircraft run in direction, mark your expected exit point.

3. In relation to the expected exit point, mark your expected opening point.

4. In relation to the expected opening point, mark the expected wind line.

5. In relation to your expected opening point and showing the approximate heights, mark your expected flight path identifying your downwind, base and final approaches.

6. Mark on your map areas to avoid when landing. (Known hazards)

Tips: Remember to always look to the direction you are turning before turning.

Remember the “Rule of Right” for collision avoidance.

It is better to make a crosswind landing than turn too close to the ground.

Be prepared to amend your plan and always fly defensively.

10. Briefing, Debriefing and Log Entries

10.1 Briefing

- Don't use the word "Difficult". Words are powerful. If you tell a student it's difficult, the student will have difficulty. Teach it instead as "different", or a "new skill". This is especially important when approaching a "different" aircraft exit.
- The student usually already has a number of skills. When briefing for Stage Two, the only difference from Stage One is the forward movement, leg trim and turn. Introduce the new skills then combine with what is already known.
- Break new information into segments
- Think about training aids. Have them in place before you start the briefing
  - Whiteboard marker
  - Suspended harness
  - Handout notes
  - Video tapes
- When making height calls during briefings, keep the timing realistic. Do not be lazy and always call the same heights. The student should be prepared to have to make a decision if, for example, they have to be preparing to pull instead of doing another turn.
- When teaching a new skill, always explain the reason for it.

10.2 Debriefing

1. Marshall the facts.
2. Listen to the student.
3. Speak to the student.
4. Watch and discuss the video together.
5. Discuss the next jump.
6. Fill out the student's log.

- Before debriefing the student, review the dive in your own mind, confer with the other jumpmaster on the student's performance and the heights at which the student performed actions. Confirm which jumpmaster will lead the debrief session. Also see the TA/CCA and get their opinion of student's canopy control.
- Shake the student by the hand and - with sincerity - congratulate them!
- Ask your students for their recollections of the dive first. Listen and prompt for missing information. You need to know how much your students remember and whether they feel they have done a good job before you influence them.
- Also, their awareness is part of their training/skill assessment.
- Then add your own information.

- In a debrief, you can always find something to praise. Praise first, constructive critique next. Praise everything that was done well. Do not praise parts of the performance that do not deserve praise.
- Your debrief should cover everything of significance between the gearing up process and returning the gear after the skydive. Remember to include canopy handling and landing in your debrief using information from the TA/CCA.
- If a criticism has to be made, criticise the performance, not the student. Keep criticism factual: avoid emotion. Instead of “You failed to perform that manoeuvre properly”, say ”Next time, that manoeuvre could be improved by ...”
- Concentrate on the root, not the outcome, of any problem. It’s easy to know that the student was (say) making uncontrolled turns, but what the student needs to know is that he/she had one knee dropped.
- A student who has performed poorly will often know it and may suggest a rejump. This may be more satisfactory than the jumpmaster having to order the rejump.
- The video is there to confirm to the student the result of the verbal debrief. It is not a remedy for poor jumpmaster memory and recall.
- Discuss the next jump with the student. His/her confidence may determine whether they advance to the next stage, as well as your assessment of their competence. If you decide that they should repeat a stage, approach it as: “We will have you do the same stage again next time to consolidate your skills and to perfect your (say) height awareness” rather than: “I’m failing you on this one because you lost height awareness. You will have to repeat the stage.”

Considerations for Advancing a Student to the Next Stage

1. Have all the aims of the skydive been met?

   If not, the student should not go on to the next stage. Some concessions might be made if the next dive is a consolidation dive.

   If not, was the unfulfilled aim a high priority such as loss of height awareness?

2. Will the unfulfilled aim be addressed in the next skydive?
3. Do you have any concerns about the student’s safety if you allow them to progress to the next stage?
4. Are you reasonably confident of the student’s ability to perform competently on the next stage?
5. Don’t be bullied by others if you are not satisfied with your student’s ability.

If you decline to allow the student to progress to the next stage

Your student has a personality, and an ego and normal human feelings. Keep this, and your professional attitude, in mind.

The term “Fail” is emotive. Avoid it if you can. You may ask the student to do the jump again for you, or point out to the student that the most effective course is to perfect some manoeuvre before going on to the next stage. “Consolidate” is a good word when used effectively: point out that stage 4, 6 and 8 are already in the system for consolidation, and that it is not uncommon for students to require further consolidation to meet the aims.

ALWAYS find something positive to say to the student about their performance.

10.3 Log Entry

- The log entry is a very important part of the debrief. It should be something the student will feel proud to show his buddies or his mother, but at the same time, it must clearly convey the student's performance to the next jumpmaster.
- Be concise with log entry so next instructor gets a correct overview of the student's performance.
- If a criticism has to be made, criticise the performance, not the student. Keep criticism factual: avoid emotion. It is better to write "Main parachute deployed by JM" than to write "Student failed to pull own ripcord", which criticises the student, and adds the emotional word "failed".
- You should note if the landing was made under the control of a TA/CCA. This is essential information for the next jump, and is important, too, because to qualify for the 'A' Certificate, the student is required to have made a certain number of accurate landings without help from the TA/CCA.
- Every entry should include a recommendation for the next jump. This might be specific: "Do stage two next", or it might have conditions: "OK for next stage if not more than two weeks before next jump" or "Next jump at discretion of DZSO".
- The log book page shown here is an example: In general the log entry should comment on each of the areas listed, as appropriate. The following is required by the Operational Regulations, in addition to the information needed for the next jumpmaster: Type of descent (AFF Stage 4), Date, Location of DZ, Exit height, Freefall time, Distance from Target, Type and registration of aircraft (Cessna-182, VH-AFF).
- Sign the log using your name and Instructor number to identify yourself. The next jumpmaster may want to confer with you about the student's performance.

10.4 Other log entries

The log may be used to record other pertinent information relevant to the student's training, such as:

"Certified as competent to pack main parachute for own use or for use by a parachutist who holds at least a Certificate Class A."

"Grounded 14 days from xx/xx/xx for deliberate low opening."

"Shoulder injury xx/xx/xx. Recommend medical clearance before jumping again."

"AFF Stage One completed as a tandem jump. Has not received instruction on emergency procedures, hazardous landings,"

"Ground training for first AFF jump completed xx/xx/xx." Or "Theory part of first jump course completed, xx/xx/xx. Has not yet done practical emergency training". Or "First jump written exam completed".

10.5 Sample Log Sheet

Jump No.:	Date:	Drop zone:
Aircraft type and call sign:	Main:	Harness:
Type of descent:	Exit height:	Delay:
JM1:	JM2:	Camera:
TA/CCA:	Landing distance:	

Jumpmaster's Comments		
Climb-out		
Exit		
Practice Pulls		
Body Position		
Fall Rate		
Tasks completed or manoeuvres		
Height Awareness		
Awareness Checks		
Ripcord Pull		
Canopy Control		
General Recall		
Jumpmaster's Recommendations ..... Signature and Instructor number		

Shaded areas are those required by the regulations to be completed

The entry in the student's log should cover each area shown above, as appropriate for the particular jump.

Stage 1: Orientation

1.1 Student Précis

This is your accelerated learning introduction to the world of skydiving. After a full day of learning the survival skills needed in all the situations you may be confronted with, this is time to put your hard work to practice. Work methodically through the processes Taught, remain calm and most of all enjoy this experience.

1.2 Instructor Précis

This is obviously a pretty intense jump for any student. This is where you need to have the ability to identify whether the student is being affected by sensory overload so as to be ahead of the game and remedy the scenario to ensure the safety of the student. Discuss with the other JM your plans of action for any eventuation ie loss of height awareness, off drop zone landings, the JM's canopy opening height – who is opening first etc. As with any jump in the AFF program you will need to be prepared for anything.

1.3 Aims of Stage One

The aim of this jump is that of orientation to the AFF program. It is the introduction to the most basic of parachute skills.

- Overcome Sensory Overload
- General Awareness
- Height Awareness
- Pull by 4,500 ft

1.4 The Briefing

White board, Student notes, Video, Rotating Table/creepers

Height awareness emphasised for all Stages

Explain the reason for learning each skill

1.5 New Skill: Extended Practice Pull

Essentially used to demonstrate stability in the pull position but also allows the JMs to adjust the position of the arms. After completion of this exercise the student can consolidate any adjustments by further completing a normal practice pull. Additionally it is also seen as an arm awareness exercise.

1.6 Stage One – Student and Jumpmaster Notes

Student	Jumpmaster 1	Jumpmaster 2
Exit Count	Exit minimum 9,000 feet	
Circle of Awareness	Watch for radical moves.	
Extended Practice Pull Wait for shake from Jumpmaster. ***Alti*** Awareness Check	• Confirm right hand has located deployment system. Adjust as necessary. • Eye contact with JM2 and shake.	• Confirm left hand will encourage stability during pull. Adjust as necessary. • Eye contact with JM1 and shake.
Leisure time *Regular* ***Alti***		

5,500 feet *Height Awareness Check*	*May be Tongue Pokes, Hand Flash, Wave - as briefed.* Return signal when appropriate.	
Main deployment procedure		
Time Awareness Count		

1.7 The Debrief

Ensure Minimum manoeuvres are met (the AFF/TAF Training Table in the TOM lists these for each stage)

- Extended Practice Pull.
- Practice Pull.
- Single height awareness check.

Performance

Check heights and performance with other jumpmaster

Common performance problems	**Considerations**
Poor exit	Looking down, kicking
Poor PP	How was the final pull? PP is included in Stage 2
Poor or no response to signals	Can they do better on stage 2?
Loss of height awareness or no pull	Something to work on

1.8 Stage One Trainee JM Review Questions

1. What are the aims of Stage 1?

   _____

   _____

   _____

2. Explain “sensory overload”

   _____

   _____

   _____

3. What sort of AAD is used at your DZ? Explain its function.

_____

_____

_____

4. How do you recognise signs of stress in a student?

_____

_____

_____

5. What would you do if your student performed poorly at the dirt dive area prior to emplaning?

_____

_____

_____

6. Draw a diagram below describing the positioning of students and JMs inside the aircraft used at your DZ:

7. When showing your student the DZ from the air, what important things are they looking for?

_____

_____

_____

8. At what altitudes would you check your altimeter and the student's? Why should you do this?

_____

_____

_____

9. What altitude would you get your student to put their goggles on?

_____

_____

_____

10. How would you deal with the following in the aircraft on jump run:

a) The student complains that their goggles have fogged up?

_____

_____

b) The student refuses to jump?

_____

_____

_____

11. Who initiates the exit count? Why?

_____

_____

_____

12. How would you react to the following, outside the aircraft:

a) The student forgets the exit count, and just stands there?

_____

_____

_____

b) The student lets go of the aircraft without any exit count?

_____

_____

_____

c) The student refuses?

_____

_____

_____

13. Describe your reactions to the following situations in freefall as JM1 and/or JM2:

a) The exit is out of control and you are face to face with the other JM.

JM1

_____

_____

_____

JM2

_____

_____

_____

b) The student has very poor body position.

JM1

_____

_____

_____

JM2

_____

_____

_____

c) The student does not do any Practice Pulls.

JM1

_____

_____

_____

JM2

_____

_____

_____

d) The student has not done the 5,500 ft awareness checks.

JM1

_____

_____

_____

JM2

_____

_____

_____

e) The student has not pulled the main pilot chute (or ripcord) at the designated height.

JM1

_____

_____

JM2

_____

_____

_____

f) You are JM2 and are at 2,500 ft still in freefall with your student.

_____

_____

_____

g) You are JM2 and your student has experienced a horseshoe malfunction.

_____

_____

_____

14. Does your DZ have any requirement regarding which JM opens first? If so - Why?

_____

_____

_____

15. As a JM under canopy what things would you be checking in regard to your student's canopy and canopy control?

_____

_____

_____

Stage 2: Forward Movement

The following outline of Stage Two of the accelerated freefall course is to be read in conjunction with the Stage Two briefing.

2.1 Student Précis

Stage Two can only be attempted after you have successfully completed Stage One, and your logbook is filled in reflecting that pass by your Jumpmaster or the DZSO.

You will have ample time from exit height to complete all of the manoeuvres if you carry them out smoothly and under control. Remember, it is essential that you check height before and after each manoeuvre as detailed in the brief. If at any time during the skydive you feel a shake, hard arch and continue on with the next item.

2.2 Instructor Précis

This is a busy stage, getting down to work on new techniques using the arms and legs. We want the student to become aware of what their limbs are doing and what effect they have on their control in the air. As with each and every jump, students become increasingly aware of their surrounding features and should be able to improve recall.

Students are often more nervous than on their Stage 1. Tell them.

2.3 Aims of Stage Two

The aim of this jump is to increase your awareness of your arms and legs in freefall and to promote a more relaxed flying style (check with your CI on whether this is the standard for your DZ).

- Heading Awareness (ground reference)
- Leg and Arm Awareness - Their effects on your flying.
- Introduction to Turns
- Pull by 4,500 feet

2.4 Known Skills used on this Stage

Exit Count, Circle of awareness, Main Deployment Procedure, Time awareness count.

Hard Arch Move smoothly back to the hard arch

Alti Check height on altimeter

2.5 New Skill: Forward Movement

Move into position slowly and smoothly. Hold the position until you receive shake from either jumpmaster. Count ‘1,000’ - ‘2,000’ - ‘3,000’ move back into neutral position.

2.6 New Skill: Leg Awareness

May be heel click signal, leg trim or backslide signal as briefed

2.7 New Skill: Introduction to Turns

Looking left, push down with the left hand commencing the turn. Count ‘1,000’ - ‘2,000’ - ‘3,000’ or hold the position until you receive shake from either jumpmaster.

2.8 The Briefing

White board, student notes, video, rotating table/creepers

Height awareness emphasised for all stages

Explain the reason for learning each skill

Remind student to move smoothly into delta position then count through to 3,000.

Briefing for turns. Importance of a straight spine and maintaining the hip arch (don't move to side) - rotate shoulders, look where you want to go. Do not over-control the turn if it is slow to respond.

Be aware of the need to stop the turn (do not build up too much speed).

2.9 Stage Two – Student and Jumpmaster Notes

Student	Jumpmaster 1	Jumpmaster 2
Exit Count ***Circle of Awareness***	• Exit minimum 9,000 feet • Watch for radical moves.	
Extended Practice Pull Wait for shake from JM. ***Alti*** Awareness Check	• Confirm right hand has located deployment system. Adjust as necessary. • Eye contact with JM2 and shake.	• Confirm left hand will encourage stability during pull. Adjust as necessary. • Eye contact with JM1 and shake.
'Check Left' *Check under your left arm for signal*		• Issue Forward Movement Signal
Forward Movement ***Hard Arch*** ***Alti***	• Not necessary to freearm	• Not necessary to freearm • Shake to return to arch
Leg Awareness *Check under your left arm for signal then perform Task.* ***Hard Arch*** ***Alti***	• Sitting back behind the student keeps your legs behind the student and helps control less stable students. However do not overdo it as it may cause the formation to rotate	• Leg Awareness: May be heel click signal, leg trim or backslide signal as briefed
Turn ***Hard Arch*** ***Alti***	• Assist with turn	• Turn Signal • Assist with turn • No signals within 1,000' of next check.
5,500 feet *Height Awareness Check*	• *May be Tongue Pokes, Hand Flash, Wave - as briefed.* • Return signal when appropriate.	
Main deployment procedure	As per AFF 1	
Time Awareness Count	As per AFF 1	

2.10 The Debrief

Ensure Minimum manoeuvres are met (the AFF/TAF Training Table in the TOM)

- Extended Practice Pull.
- Forward and backward trim.
- Introduction to turns.
- Single height awareness check.

Performance

Check heights and performance with other jumpmaster

Common performance problems	**Considerations**
Poor exit	Student has one more jump with 2 JM exit to improve performance
Poor PP	How was the final pull? PP may be included in Stage 3
Poor or no response to signals	Is the student's lack of performance critical to build on for subsequent stages?
Loss of height awareness or no pull	Should be of concern given that the next dive is intended to be a release dive. If progressed may affect the JM's decision to release

2.11 Stage Two Review Questions

1. What are the aims of Stage 2?

_____

_____

_____

2. What two important things should you do when meeting your student prior to giving them a Stage 2 briefing?

a. _____

_____

_____

b. _____

_____

_____

3. What are the JM signals and their meanings during a Stage 2 jump?

_____

_____

_____

_____

_____

_____

4. At what altitude is the awareness check done prior to pulling the main ripcord?

_____

5. Your student has lost altitude awareness during the skydive and failed to initiate deployment. All other aims were achieved. Will you pass the student to do Stage 3?

_____

_____

6. What are the minimum number of jumps required per year to have your Sporting Licence renewed?

_____

7. When must approved flotation gear be worn by student parachutists?

_____

_____

8. What is the minimum qualification for an AFF camera person?

_____

9. All descents are made under the direct supervision of a:

_____

10. Minimum distance from the target to any landing hazard is:

    a. Student?

    _____

    b. Certificate 'Class A'?

    _____

Stage 3: Hover Control

3.1 Student Précis

The following outline to Stage Three of the accelerated freefall course is to be read in conjunction with your Stage Three briefing. Stage Three can be attempted only after you have passed Stage Two and your logbook is filled in noting that pass by your jumpmaster.

The ability to fall straight down in your own column of air is essential in all skydiving particularly in formation skydiving. We call it hover control because, relatively, you are hovering close to the jumpmaster in front of you and using them as a heading in the sky.

If, after you have been released by JM2, you see yourself drifting back away simply straighten your legs a little and you will move back towards him/her. If you start flying towards them just use your arms and legs to stop the forward movement. It's all about using your share of the air and nobody else's.

3.2 Instructor Précis

This and the next stage are the most important in the AFF program. The student must establish control and develop their personal, relaxed flying position.

These jumps are also very important psychologically in that the student is being released for the first time. If a relaxed flying position with the corresponding feeling of control is not achieved in these two jumps, problems can develop later on, and the student often gets frustrated and loses confidence.

The TOM introduces spotting at this stage; if you don't start it now, no-one is likely to teach it later.

You must be vigilant in achieving the aims of this jump.

3.3 Aims of Stage Three

- Observation of spotting commands.
- Practice Pull at jumpmasters' option.
- Heading maintenance.
- Hover control.
- Solo pull completed by 4,000 ft.
  Note that JM1 should not release if they feel doubtful about the student's ability to deploy!
  A light grip can be maintained throughout the pull without compromising this aim.

Implicit are the aims from previous stages:

- Height Awareness.
- Consolidation of skills learnt in Stages One and Two.

3.4 Known Skills used on this stage

Exit count, circle of awareness, main deployment procedure, time awareness count, hard arch, alti.

3.5 New Skills: Hover Control and Heading Maintenance

Once the "box" or "relaxed flying position" has been achieved, hover control is doing as little as possible to maintain a current position in the forward/backwards and side to side axes.
Heading maintenance involves using minor upper body movements to correct any rotations.

3.6 New Skill: Wave Off

The wave-off is a signal to those around you in the sky that you are preparing to deploy your parachute. Use it on each and every jump you do from now on.

Wave twice, methodically and smoothly. Bend from the elbows, with your hands about level with your forehead; stay symmetrical. Think "windscreen wipers".

3.7 The Briefing

White board
Student notes
Video
Rotating table/creepers
Height awareness emphasised for all Stages, revise turns.
Note student's body position and correct any lack of symmetry

3.8 Stage Three – Student and Jumpmaster notes

Student	Jumpmaster 1	Jumpmaster 2
Exit Count ***Circle of Awareness***	Exit minimum 8,000 feet Dress For Success - students have an incredible ability to float. Do not expect a student to arch harder or fall faster in response to your signal or if you are going low.	
Extended Practice Pull Wait for shake from Jumpmaster.	At jumpmaster's discretion.	
Alti Awareness Check LOOK LEFT' 'HOW ARE MY LEGS?' Respond in graded increments, not extremes		Straighten Legs Bend legs Signals as required
Alti 'LOOK RIGHT' 'HOW ARE MY ARMS?' Be symmetrical	JM1 provides input. Leave student in a neutral or 'box' flying position.	
Alti Stay close to JM2	Nod to JM2 to approve release	Eye contact and wait for nod. JM2 grip changes/flies to the front of the student.
Respond to any signals from Jumpmaster 2	Fly light and don't anchor	Smile. Release. Signal as appropriate. Can include PP if desired.

Circle of Awareness		Stay close Get back on if problems occur
5,000': Lower Awareness Check ***Wave Off***	You must see a Lower Awareness Check by the student prior to release. There is no harm in Maintaining a gentle grip	
4,500 – 4,000': ***Main deployment procedure***		Stay slightly right in case student starts to turn whilst deploying
Time Awareness Count		

This jump is one of the most important in the AFF program.

Your student's level of arousal can be quite high as they are aware that this progresses them to a one-on-one long release on Stage Four.

3.9 The Debrief

Ensure Minimum manoeuvres are met (the AFF/TAF Training Table in the TOM)

- Arm and leg trim confirmation.
- Height awareness check at 5,000 ft.

Check heights and performance with other jumpmaster

Would you yourself take this person for a Stage Four?

Performance

Common performance problems	**Considerations**
Poor exit	Will only one JM be able to safely control the exit?
Poor control of hover	How poor? To the point of instability? Can one JM handle it?
Loss of height awareness or no pull	Usually should not progress
Anxiety experienced after JM release	Psychological disadvantage of being released too early. A "modified" Stage 4 can be useful in some situations.

3.10 Stage Three Review Questions

1. What are the aims of Stage 3?

2. What JM signals are used on Stage 3?

3. Which JM will move to the front of the student and when does this happen?

4. What altitude is the awareness check done on Stage 3 and how?

5. JM1 and the student start spinning after you release - as JM2 what will you do?

6. What is an alternative ground-to-air communication system to radios, and how might it signify various instructions to those in the air?

7. The DZSO will assess a student if they have not made a training descent during the preceding _____ days.

8. All training descents are made under the supervision of

_____

_____

_____

9. Who signs a student parachutist's log book?

_____

_____

_____

Stage 4: Consolidation

4.1 Student Précis

The following is an outline to Stage Four of the accelerated freefall course. It is to be read in conjunction with your Stage Four briefing. Stage Four can only be attempted after you have completed and passed Stage Three and your logbook if filled in noting that pass by your JM. This jump should be attempted on the day or at least within 24 hours of successfully completing Stage Three.

Essentially this jump consolidates Stage Three, the difference being that you now have one jumpmaster in the air with you instead of two. It is extremely important that you work on performing a good exit, it will give both you and your jumpmaster increased confidence in your ability to carry out the skydive properly. You will probably find that the exit is easier with only one jumpmaster.

Remember that you can read the altimeter mounted on the jumpmaster's chest, if they are wearing one there, as well as your own, but continue to check your own during the skydive.

Position after the Exit:

Remember during the exit you must perform a good hard arch. When the formation has flattened out and is in control adopt the neutral (box) flight position.

4.2 Instructor Précis

This skydive possibly performed most poorly of all: Not normally in terms of poor Gross Motor skills, but often merely through tension and a lacking of relaxing into the "Boxman" or "Relaxed Flying Position".

If any jump is videoed it would be of great benefit to have this one. Always attempt to complete this stage within 24 hours of successfully completing Stage Three. If this isn't achievable then a "modified" Stage Four, with two JMs may be an option.

This is the critical stage in creating a good platform for subsequent training and will greatly enhance the speed of future stage progression. It is at this at this point where it may be better to hold the students training here for a greater gain in the long term.

4.3 Aims of Stage Four

- Observation of spotting commands.
- 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.

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

4.4 Known skills used on this stage

This is a consolidation of Stage 3.

4.5 New skill: Stability Recovery

If at any time you find yourself out of control:

HARD ARCH - Straighten your legs and point your toes.

Advanced recovery from back-to-earth:

Pull one arm in to chest, look over that shoulder at the ground, roll face-to-earth, arch.

4.6 The Briefing

White board, student notes, video

Rotating table/creepers

Height awareness emphasised on all stages

Brief student about difference in climb-out and exit - may feel one side low

Use the word “different” instead of “difficult” (this applies to any briefing)

Introduce advanced recovery position

Buddy altimeter reading if applicable

Review hard pull and floating ripcord procedures.

Cessna 182 type climb out

With a Cessna 182 type exit, do not climb out first and wait on the strut for the student. This leaves the JM with little control if the student has trouble with the climb out or pops their rig going through the door. Recommended JM procedure is to kneel, back to the instruments and have the student climb out across the JM’s front taking up the first grip and having other hand free to assist the student.

4.7 Stage Four - Student and Jumpmaster Notes

Student	Jumpmaster 1	Jumpmaster 2 (optional)
Exit Count ***Circle of Awareness***	Exit minimum 8,000 feet Single jumpmaster may be on either side or in front	
Alti LOOK at JM ‘HOW ARE MY LEGS?’ Respond in graded increments, not extremes	Straighten Legs Bend legs Signals as required	
Alti ‘HOW ARE MY ARMS?’ Be symmetrical	JM provides input. Leave student in a neutral or ‘box’ flying position.	
Alti	Grip changes/flies to the front of the student.	

Respond to any signals from Jumpmaster 2 ***Alti***	Smile. Try and ensure the student is relaxed to a sensible degree. Release and smile. Signal as appropriate.
Circle of Awareness Maintain relative position	Stay close Get back on if problems occur
5,000': Lower Awareness Check ***Wave Off*** 4,500 – 4,000': ***Main deployment procedure*** ***Time Awareness Count***	Be wary and vigilant on this stage. There is more potential for danger than any other stage. The student's arousal level can be extreme. There is potential for a panic pull as well as radical spins and instability. The most effective way to stop a student spin is to catch the inside of the leg.

4.8 The Debrief

Ensure Minimum manoeuvres are met (TOM)

- Arm and leg trim confirmation.
- Height awareness check at 5,000 ft.
- Wave and pull.

Performance

Common performance problems	Considerations
Poor exit	AFF 5 exit is the same as AFF 4. Will it affect the rest of the skydive?
Poor control of hover	Did the student demonstrate control of the hover? Does he/she perform well enough to build on the next techniques? Student needs a reasonable ability to remain stable before moving to forward movement and turns.
Loss of height awareness or no pull	Usually should not progress. Often a result of other problems – Lack of heading control, too unstable to see signals.

Note that some Training Organisations have a policy of requiring video on any Stage 4 repeat.

4.9 Stage Four Review Questions

1. What are the aims of Stage 4?

_____

_____

_____

2. Your student is flying very knees down.

a. Will you release?

_____

b. What signal will you give?

_____

3. You have released and your student has an involuntary left turn that is not corrected.

a. What will you do?

_____

_____

b. What could be the cause of your student's problem?

_____

_____

_____

4. At what altitude is the awareness check done on Stage 4?

_____

5. Your student has not responded to your FIST signal - What will you do?

_____

_____

_____

6. When are Incident Notifications sent to the APF Office?

_____

_____

7. A grounding must go to the Area Tribunal if it exceeds _____ days.
8. Instructor ratings are provisional for _____(time).
9. Instructor ratings are valid for _____ years.
10. Minimum qualification of an Instructor teaching an AFF 1st jump course is:

_____

_____

_____

11. What are the dangers of the JM climbing out first onto the strut, leaving the student to follow?

_____

_____

_____

12. How will you avoid this (ref Q11)?

_____

_____

Stage 5: Turns and docking

5.1 Student Précis

The following outline to Stage Five of the accelerated freefall course is to be read in conjunction with your Stage Five briefing. Stage Five can be attempted only after you have passed Stage Four and your logbook if filled in noting that pass by your Jumpmaster.

Most formation skydiving manoeuvres involve turns and docking. This skydive will introduce you to turning in a particular direction through 360 degrees and stopping when you return to the same heading then moving forward and docking with the Jumpmaster. The axis point of this turn is your belly button, not your head or feet

The Jumpmaster is your point of reference in the sky. If at the completion of your turn you are not facing the jumpmaster, you have either turned too far or not far enough. Docking is a subtle procedure that must be carried out smoothly. Remember not to reach out too early to take grips when docking: fly right into the docking position then simply close your hands on the grips.

During turns, your jumpmaster is your point of reference in the sky.

If at any time you find yourself out of control, HARD ARCH - Straighten your legs and point your toes.

5.2 Instructor Précis

This stage, and stage 6, consolidate a student's hover control and jump routine. Both starting and stopping a turn is involved, and the ability to drive forward to a docking position is introduced.

The JM will need to make allowances for different fall rates, and swinging or arcing turns. No more than five seconds should be allowed for the turn, and an alti check conducted at that point regardless of heading. Specify the turn directions to ensure student is controlling the movement and not merely drifting.

The forward dock is often the weakest point of the dive, with a lack of assertiveness the cause. Suggest over-emphasising the leg movement encourages spatial awareness of legs and feet. Avoid the use of "arms back" for forward movement. Taking up full grips in the dock is not essential and possibly of minor importance with the focus on these skills in the Class B Training Table (B-Rels).

If this is the student's sixth AFF jump for reasons other than exit instability, consider introducing the solo exit, or perhaps one with a light grip; encourage them to make the attempt, as they can often be better of without you holding them!

5.3 Aims of Stage Five

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

5.4 Known skills used on this stage

5.5 New skill: 360° Turns

5.6 New Skill: Forward Movement

5.7 The Briefing

Video aid for briefing

Not normally done as a solo exit. The Training Operations Manual indicates an optional solo exit. However most DZs prefer a linked exit so as not to encourage exit induced turns.

Creepering this stage with an Assistant turning and moving the student forward will build good pictures of the turns and will show when to take up grips for docking.

Stay close (about 2 to 3 metres)

Warn the student about "relaxing" after docking which may result in backsliding.

The instructor moves away, not the student.

Describe the causes of "backsliding".

Emphasise "control" of turns and stopping turn before moving forward.

Introduction of "Wave and Pull". The start of break-off manoeuvres "Turn, track, wave and pull."

5.8 Stage Five - Student and Jumpmaster Notes

Student	Jumpmaster 1
Exit Count	Exit minimum 8,000 feet
Circle of Awareness	Exit with one Jumpmaster (possibly unlinked - at JM's option)
Alti LOOK at JM Respond to any signals	Jumpmaster releases grips (may give extend leg signal if tension felt). Jumpmaster moves to front as soon as possible. Maintain level with the student to avoid them having to "look up".
Alti	Give signal for 360° Turn.
Perform 360° Turn	Observe their legs. Do not allow over-rotation to go too far - Only let over rotate perhaps twice before stopping the spinning student. The most effective way to stop a student spin is to catch the inside of the leg Get back on BEFORE things go bad!
Alti	Prompt for height awareness if required. If the student is not looking at their altimeter enough, looking at your own may trigger a reminder. Give signal for forward movement
Move Forward	Prompt for height awareness if required
Alti	Give signal for opposing 360° turn.

Perform 360° Turn ***Alti***	Prompt for height awareness if required. Give signal for forward movement.
Circle of Awareness	If time permits, signal another turn If time permits, signal another forward movement
5,000': Lower Awareness Check	Avoid having the student working through their lower awareness check.
4,500 to 4,000' ***Wave Off*** ***Main deployment procedure*** ***Time Awareness Count***	Pull completed by 4,000'

5.9 The Debrief

Ensure Minimum manoeuvres are met (TOM).

- 360° turn followed by pin, then opposite 360° turn and pin.
- Hand flash awareness check at 5,000 ft.
- Wave and pull

The next Stage is a consolidation jump, so minor performance inadequacies may be addressed then.

5.10 Performance

Performance:	Considerations for progression:
Poor exit	AFF 6 exit is meant to be a solo exit, is the student ready for this?
Poor control of hover/turns	Did the student demonstrate control of the hover/turns? Although the student may not have completed the entire sequence, did they do enough to demonstrate a degree of control?
Loss of height awareness or no pull	This is rare but would be of serious concern at this stage. May be a result of lack of currency or too fast a progression.

5.11 Stage Five Review Questions

1. What are the aims of Stage 5?

_____

_____

_____

2. List training aids that may help your briefing:

_____

_____

_____

3. Your student has commenced the first 360° turn and you notice thick cloud below you. What will you do?

_____

_____

_____

_____

4. Your student has done good 360° turns but is unable to fly forward.

   a. Do you pass the student?

_____

   b. Why?/Why Not?

_____

_____

_____

5. Your student has performed poorly and you are going to fail them on this stage. How will you go about it?

_____

_____

_____

6. Explain the difference between the Packer 'A' and Packer 'B' rating.

_____

_____

7. When is an equipment defect form used and to whom is it sent?

_____

_____

_____

8 What packing record of student main canopies must be kept?

_____

_____

9. What are the main briefing points to prepare a student for a solo exit?

_____

_____

a. dangers when climbing out?

_____

_____

b. potential exit/arch consideration?

_____

_____

Stage 6: Consolidation (Turns and docking)

6.1 Student Précis

The following outline to Stage Six of the accelerated freefall course is to be read in conjunction with your Stage Six briefing. Stage Six can be attempted only after you have passed Stage Five and your Logbook if filled in noting that pass by your jumpmaster.

This skydive is the same as Stage Five except for the 180 degree turn before the wave-offs, so you should not have any trouble with the turns. There are a few things to remember that can help you to have smooth turns that finish on the right heading.

1. Look at your jumpmaster on exit to help Maintain heading.
2. Maintain a good body position throughout the whole turn. Establish eye contact as soon as possible after going through the 180 degree point in your turn. The sooner you know where you are going the better.
3. Don't rush your turns; a slow, smooth turn is the optimum.

Look for your jumpmaster as soon as you pass the 180° point in your turn

6.2 Instructor Précis

Any skills that need refining from Stage 5 can be polished here without major changes to the sequence.

6.3 Aims of Stage Six

- Spotting, student gives directions to jumpmaster.
- 360° turns.
- Forward movement and docking.
- Pull completed by 4,000 ft.

6.4 New skill: 180° Turn

Explain to the student the "big picture" for break off. At break off height, skydivers turn from the centre, track, flare, wave and deploy. On the next stage we will introduce tracking; on this jump, we will get used to the idea of facing away from the centre during the deployment.

6.5 The Briefing

Video aid for briefing

Creepering

Pay particular attention to any area of inadequacy in the previous stage

Don't let your student keep turning to look for you - Initially they should perform a poised exit from the aircraft so they can keep their head up and have you in view from exit as you fly down in front of them. If they lose sight of you they should select an object on the horizon to use as the heading and wait for the jumpmaster to fly to there.

Solo exit briefing - different not difficult!

6.6 Stage Six - Student and Jumpmaster Notes

Student	Jumpmaster

Exit Count ***Circle of Awareness***	Exit minimum 8,000 feet Solo exit Follow and position approximately 3 - 4 metres in front of student
360° Turn	Assuming the student can Maintain a previously agreed heading (hill, ocean, DZ) and perform an alti check, there is no need for them to wait for the JM to arrive before beginning their first 360° turn. This can save valuable working time.
Alti	Prompt for height awareness if required. Give signal for forward movement.
Forward movement and Dock	Watch for the student backsliding if looking up at you. If necessary, give the appropriate signal.
Alti	Prompt for height awareness if required. Signal opposing 360° turn
360° Turn ***Alti***	Prompt for height awareness if required. Give signal for forward movement.
Forward movement and Dock	
Circle of Awareness 5,500' ***Lower Awareness Check***	If time permits, signal another turn If time permits, signal another forward movement Avoid having the student working through their lower awareness check
180° Turn ***Wave Off***	Move to student's right hand side (main pilot-chute handle side) as they make their 180° turn. Be prepared to chase
Main deployment procedure ***Time Awareness Count***	Get back on BEFORE things go bad!

6.7 The Debrief

Ensure Minimum manoeuvres are met (TOM).

- Solo exit.
- Turns and pins as per stage 5, (with increased separation).
- 180° turn, wave, and pull.

Performance

Before recommending advancement to Stage 7, ensure that the student has corrected any inadequacies found in Stage 5.

Special Considerations for progression

If the student is passed on this jump they may now perform a solo jumps. The student should now be at a stage where the jumpmaster considers them capable of performing a simple solo jump (TOM 4.6.2).

That is: know how to behave in an aircraft and climb out safely, exit stably, maintain height awareness while performing simple manoeuvres, deploy safely and control their parachute to a safe landing.

A solo jump can help a student to feel comfortable with their current skills and polish any rough areas. Consequently a student who still causes any concerns about height awareness -or flying control to the point of instability - should not progress past this stage.

6.8 Stage Six Review Questions

1. What are the aims of Stage 6?

   _____

   _____

   _____

2. What points would you cover about the exit in your briefing?

   _____

   _____

   _____

3. Your student has a reputation for slow fall rate - what protective measure should you take?

   _____

   _____

   _____

4. You notice your student's altimeter is not working properly on the climb to altitude. What will you do?

   _____

   _____

   _____

5. In freefall at 6,000 ft you notice that you are far from the DZ and you are unlikely to make it back from normal opening height. What will you do?

   _____

   _____

   _____

6. How would you set your altimeter if you were taking off from an airfield that is 500 ft lower than the DZ? - Draw a picture of the alti before Take-off…

_____

7. How do you set a Cypres AAD for a DZ 500 feet lower than the airfield? - draw a picture of the display…

_____

8. Describe the “Useful Load” for an aircraft used in parachuting operations.

_____

_____

_____

9. Are there any problems with the accuracy of an altimeter if you are in a back-to-earth position?

_____

Specify

_____

_____

_____

10. Name three or four types of AAD:

_____

_____

_____

_____

Stage 7: Recovery and Tracking

7.1 Student Précis

The following outline to Stage Seven of the accelerated freefall course is to be read in conjunction with your Stage Seven briefing. Stage Seven can only be attempted after you have passed Stage Six and your Logbook is filled in noting that pass by your Jumpmaster.

A proficient skydiver must be able perform a dive exit and turn sub-terminal, perform a backloop (which may involve recovering from an unstable position) and also to track away from other people in the sky to a clear space before opening the parachute.

7.2 Instructor Précis

The student is being asked to put together a complex set of manoeuvres and at the same time to relate to another person in the air in a true 3-D environment. They have to make judgements on vertical distances and keep track of headings on the ground/horizon.

It is too easy for the JM to believe he is on a dive with a novice rel worker - never forget you are responsible for the students' safety. Keep within a safe, communicable distance as much as possible.

Some students can track efficiently at their first attempt; be ready to Stay with them. Some will perform a 180° in the track and reappear underneath you. Start the track with plenty of time to spare. An awareness count in the track will help with body position where alti checks may not.

This dive is a real fun dive for the JM as well as the student: The student has achieved a certain level of awareness and proficiency and has the ability to pull at the right height, allowing you more freedom to focus on other aspects of the dive. Mention that on this skydive they're doing it all themselves – from exit to landing – without an instructor's grip.

7.3 Aims of Stage Seven

- Spotting, student gives commands directly to the pilot .
- Sub-terminal control.
- Back-loops.
- Tracking.
- Pull completed by 4,000 ft.

7.4 New skills

Dive exit with Sub-terminal Turn

This requires little in the way of new skills. Simple exit, head low, towards the tail being sure to be steep enough to present your chest into the airflow. As soon as you are established in freefall commence a turn. Since you are not yet at terminal velocity this will be slower than you are used to. Turn until you are facing your jumpmaster.

New skill: Backloop

The backloop involves the following actions in one 'fluid' movement:

1. Start by moving your arms forward to begin in a head high attitude, then…
2. Push arms down and lift knees to chest in one motion and

3. Throw head back (important) and follow through with arms and look for horizon;

4. Maintain the “tucked/knees up” position until face-to-earth again. If you begin to tumble, adopt the hard arch.

New skill: Track

THE TRACK POSITION: Arms close to the side of the body - pushing down, legs straight, body slightly cupped, head up watching a point on the horizon to maintain heading. If you start to feel out of control, spread your arms and legs slightly.

Before you start to track, pick a point on the horizon to use as a reference - this will help you Maintain a constant heading. Remember not to lose height awareness when in your track - continue to monitor your height by looking at and reading your altimeter while tracking.

Skill from Stage 4: Advanced Recovery

If not ‘in control’ and find yourself falling back to earth, use Advanced Recovery from back-to-earth position: Pull one arm in to chest, look over that shoulder and roll face-to-earth. This will flip you around to face the ground, then hard arch to make certain of control and check height immediately.

7.5 The Briefing

Video aid for briefing

Take time to explain the different feel of this exit and the different visuals associated with the dive exit.

Hard Arch: Recovery is more important than the backloop - It will feel and look different. Reinforce recovery from back to earth (barrel roll) - the main aim is a good recovery, not the perfect backloop.

Ask if the student has performed back loops on trampoline or in water. Suspended harness can be used as a training aid.

Reinforce advanced recovery technique

For the track, tell your student

- Pick reference point on horizon and watch it
- Head up
- Legs first, then arms - SLOWLY!

Reinforce height awareness!

Tell student they can move back into Delta type position if track gets wobbly and they are not in control

Creepering

7.6 Stage Seven - Student and Jumpmaster Notes

Student	Jumpmaster
Exit Count	Exit minimum 8,000 feet
Dive Exit	Solo exit
Sub-terminal Turn	Follow and position approximately 3 - 4 metres in front of student. Set up a little further out than in previous dives to avoid losing visual information in the vertical separation from the backloop.
Alti	
Observe Backloop	Jumpmaster will turn 90 degrees and demonstrate Backloop

Backloop	Student should drop to your level. Be prepared for radical height loss (vertical dive if necessary.)
Alti	Is there sufficient height to perform another backloop? Signal if so
Backloop ***Alti***	Chase!
5,000 feet or above Turn to heading ***Track*** TRACKING, TRACKING, Check Altimeter, TRACKING, Check Altimeter	Indicate direction of track 90° to jump run. Follow the student in their track: Stay close to their right side to observe
5,000 feet ***Flare from track*** 4,500 feet ***Wave off*** ***Main Deployment Procedure***	Be watchful: the student may track in a circle and come under you.

7.7 The Debrief

Ensure Minimum manoeuvres are met (TOM)

- Dive exit.
- Backloop.
- Locate and track toward drop zone.
- Flare at 4,500 ft, wave and pull.

Poor exits are usually due to student not Staying legs up enough, resulting in the airflow pushing them completely over – or the dive is executed sideways from the aircraft with the relative air pushing the student onto their back.

A perfect backloop is not essential. Recovery from it is. Emphasise the fun aspect of it.

7.8 Performance

Performance:	Considerations for progression:
Poor exit and/or sub-terminal turn	Was it due to failure to commit to a head low exit, or due to poor body position? Did the student initiate a turn or simple flip out of the dive facing uphill?
Poor backloop	Did the student put the required effort into the manoeuvre? Did the result improve the student's confidence in recovery from unusual attitudes?
No track or poor track	A very important part of this dive although the student has the opportunity to consolidate on the Stage 8. If more development in body position is required, a solo with accompanying JM for critique is an alternative to progression.

7.9 Stage Seven - Review Questions

1. What are the aims of Stage 7?

_____

_____

_____

2. Are there any training aids or considerations that could help with this briefing?

_____

_____

_____

3. If your student expresses concern about going ‘unstable’ during the skydive, how would you react?

_____

_____

_____

4. What points would you cover about the exit in your briefing?

_____

_____

_____

5. Why would a student be unable to keep a heading during the track?

_____

_____

_____

6. What training aids could you use to teach back loops?

_____

_____

_____

7. Explain over learning

_____

_____

_____

8. What is the correct method of asking a question, as described in the APF Instructor Guide?

_____

_____

_____

9. Complete the following:

* Must Know
* _____
* _____

10. What are the three principles of good instruction?

_____

_____

_____

Stage 8: Fast and slow fall, tracking consolidation.

8.1 Student Précis

The following outline to Stage Eight of the accelerated freefall course is to be read in conjunction with your Stage Eight briefing. Stage can only be attempted after you have passed Stage Seven and your logbook if filled in noting that pass by your jumpmaster.

The fast fall and slow fall positions increases or decrease your fall rate respectively relative to another jumper and bring you vertically to their level. Changing your freefall speed is done by altering your body SHAPE/ARCH to more or less streamline your body. Be aware that with the de-arched you are moving toward an unstable body position.

Turning to track: Turning 180° then tracking away from other people in the sky you will need to be able to adjust your body position to maintain the flattest track for maximum separation. This can be achieved by slightly de-arching the body and pushing the swept back arms down slightly below the body line into the air flow. Turning the toes out will extend the cupping effect of body down the legs catching maximum air flow. Practice the position on the ground.

8.2 Instructor Précis

At this stage in a student's skydiving career, the new skills of fast/slow fall and s-tracking do not in themselves present much difficulty. The challenge is to be able to package all of these skills efficiently into the one skydive. With this in mind, an underlying aim of stage 8 is to be able to complete the skydive.

8.3 Aims of Stage Eight

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

8.4 New skills: Fast fall, slow fall

8.5 The Briefing

Video aid for briefing, rotating Table

Creepering

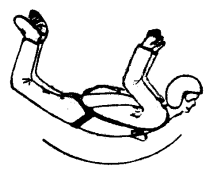
Explain the reasons for learning each skill

Advise that fast fall effect come mostly from increasing the chest/pelvic arch, while slow fall takes a little time to take effect

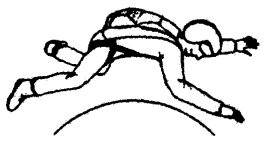
When beginning a track - Legs first, then arms - SLOWLY

- Look to where you want to go for the heading change
- MAINTAIN HEIGHT AWARENESS IN THE TRACK

Fast fall



De-arch



8.6 Stage Eight - Student and Jumpmaster Notes

Student	Jumpmaster
Exit Count ***Poised Exit*** ***Alti***	Exit minimum 8,000 feet Solo exit Follow and position approximately 2-3 metres in front of student. .
Fast Fall Avoid looking up at JM which causes backsliding ***Alti***	Jumpmaster may demonstrate these first if height permits. Emphasise fast fall if you demonstrate. Corrective signals if necessary
Slow Fall Avoid looking up at JM which causes backsliding. Trust your body position. Patience. ***Alti***	
(Repeat)	Repeat as height allows
6,000 feet or above Turn to heading ***Track*** TRACKING, TRACKING, Check Altimeter, TRACKING, Check Altimeter	Indicate direction of track 90° to jump run. Follow the student in their track: Stay close to their right side to observe
5,000 to 4,500 feet ***Flare from track*** ***Wave off*** ***Main Deployment Procedure***	Be watchful: the student may track in a circle and come under you. Pull complete by 4,000'.

8.7 The Debrief

Ensure minimum manoeuvres are met (see TOM):

- Poised exit.
- Fast fall to jumpmaster's level.
- Slow fall to jumpmaster's level.
- 180° turn and straight track.
- Flare, wave and pull.

8.8 Performance

This may be the student's last freefall manoeuvring skydive under direct instructor supervision.

Is the student safe to let loose - on their own or with a RW coach?

Are there any issues that remain to be resolved for their own safety and that of others?

Performance:	Considerations for progression:
Little change of body position during manoeuvres	Does the student have sufficient control to appreciate the effects of the freefall adjustments? Can he/she refine this as a solo jump? Did they cover an acceptable distance when tracking?
No track or poor track	A very important part of this dive. Tracking is an important safety skill - a student must have produced a reasonable demonstration of this. Consider consolidating with JM.
General ability and awareness	This is rare but would be of serious concern at this stage. May be a result of lack of currency or too fast a progression.

8.9 Stage Eight Review Questions

1. What are the aims of Stage 8?

_____

_____

_____

2. Describe how you would teach fast and slow fall.

_____

_____

_____

3. Your student did a poor dive exit on Stage 7. What points would you cover on the exit for this stage?

_____

_____

_____

4. Did the student turn 180° and maintain their tracking direction?

_____

_____

_____

5. How would you know whether your student's AAD has fired?

_____

_____

_____

6. When should we test a student?

_____

_____

_____

7. Do you see any value in 'Mental Rehearsal' for a student?

_____

Explain

_____

_____

_____

8. What is primacy in learning?

_____

_____

_____

9. What is another description of 'latent ability'?

_____

_____

_____

10. Where do you find details of the syllabus taught at your DZ?

_____

_____

_____

Stage 9: Clear and pull.

9.1 Student Précis

The following outline to Stage Nine of the accelerated freefall course is to be read in conjunction with your Stage Nine briefing. Stage Nine can only be attempted after you have passed Stage Eight and your logbook is filled in noting that pass by your Jumpmaster. Stage Nine may consist of up to three jumps. The first two jumps shown here are preparation for the third, which is the one that must be completed to pass Stage Nine.

The purpose of this stage is to ensure that you can exit and open immediately in a stable position in case of an emergency exit. When performed intentionally, this style of exit is referred to as a "hop and pop" or a "clear and pull".

Do not rush. Keep in mind that exiting at 4,000 feet gives more time in freefall than arriving at 4,000 feet already at terminal velocity; it takes roughly eleven seconds to cover a thousand feet of vertical distance from exit.

9.2 Instructor Précis

Stage nine is to introduce the student to exiting at lower altitudes.

It is merely a psychological step to overcome; such that stability is obtained quickly, and the pull is safe only while the body is stable.

9.3 Aims of Stage Nine

- Orientation for exits at lower height.
- Pull completed by 3,500 ft.

Some Training Operations require more than one jump as part of the Stage 9.

9.4 New skill: Sub-terminal Opening

Remember to get 'in control' - Hard Arch. If not in control when you reach opening height, commence Main Deployment Sequence anyway.

Do not lose height awareness.

Do not omit the Wave off

9.5 The Briefing

As per new skill.

Advise that opening may take longer and feel less positive than a terminal opening.

Remember the priorities of every skydive:

In order of importance…

1. PULL
2. PULL AT A SAFE ALTITUDE
3. PULL STABLE (if possible … if not remember priority 1 and 2)

9.6 Stage 9 - Student and Jumpmaster Notes

Student	Jumpmaster 1
Exit Count ***Time awareness count*** ***Five second delay*** ***Gain stability*** ***Main deployment sequence***	Exit 4,000 to 4,500 feet Observe and count Note sequence and opening for debrief

9.7 The Debrief

Note their performance in terms of the aims.

For most students, this marks the end of their basic training, and should be marked with the appropriate congratulations.

9.8 Performance

Ensure minimum manoeuvres are met (TOM)

- Spotting unassisted.
- Poised exit.

Performance:	Considerations for progression:
Unstable exit	Student must trust their arch. Kicking and flailing do not promote stability.
Low opening	Height awareness is paramount.
High opening	Are they rushing? Deploying as a reflex rather than feeling the air?
No wave	This should be ingrained by now. Remind them that they are signalling to other skydivers of their intention.

9.9 Stage Nine Review Questions

1. What are the aims of Stage 9?

_____

_____

_____

2. Describe the exit procedure for this stage at your DZ.

_____

_____

_____

3. Your student is nervous about exiting close to the ground. What steps could you take to reassure them?

_____

_____

_____

4. When do students jump without a TA/CCA at your DZ?

_____

_____

_____

5. At what height should a student parachutist's canopy be fully deployed?

_____

_____

_____

6. When should restraints be used by parachutists in the aircraft?

_____

_____

_____

7. What is the minimum age requirement for the following?

a. 1st Tandem Jump? _____

b. 1st AFF Jump? _____

c. Certificate 'A'? _____

d. Certificate 'B'? _____

Extra Solo Jumps

The Training Operations Manual allows students to make certain solo jumps after successfully completing Stages Six AFF.

These jumps need the specific approval of the DZSO. An instructor may recommend a solo jump, but only the DZSO can give the final written authority in the student's logbook.

These jumps may be used to consolidate and polish manoeuvres before the next stage - to help a student whose performance is a little below what is required.

They should not be used where the manoeuvre concerned was performed well below a passable level, as there is insufficient scope for observation and correction by an instructor.

If you have any doubt as to a student's ability to deploy his/her parachute stable and at the right height, they should not have been allowed to reach this stage, and certainly should not be permitted to make solo jumps.

A student can only practice on a solo jump what they have partially achieved previously.

Students should not practice tracking on solo jumps. It may cause contention with other exits on the load, and without a JM to critique there is little opportunity for skill development.

Stages One to Three Involving Tandem Jumps (Tandem Assisted Freefall – TAF)

Stages One to Three of the AFF Training Table may be carried out using tandem jumps. This has certain advantages:

- The training for canopy emergencies and canopy control and landing can be excluded from the first jump course, which is easier on the training organisation and less for the student to remember.
- Much less risk of a student landing injury.

To carry out these jumps, the tandem-Master must hold both tandem and AFF instructor endorsements.

Jumpmasters are reminded that if they are dealing with a student who has done the early stages as Tandem jumps and they must ensure that any omitted training has been completed. The students complete first jump exam must be passed before the student's first non-Tandem jump to check there are no gaps in the training.

Note that the training for emergency procedures must be given by an Instructor 'B'. An Instructor 'D' may not give initial training on emergency procedures.

Only Stage one, two and part of three may be performed as Tandem jumps (see the AFF/TAF Training Table in the TOM). It is not permitted to pass any other stage as a Tandem jump.

Tips and Traps

Things go in here which do not fit comfortably elsewhere in the Guide. This section will grow over time, and it may be that from time to time, related items can be cut out of this section and placed in a section of their own.

Jumpmaster's Personal Equipment

It is part of the jumpmaster's duty to present a professional appearance. Part of this may be an organisational uniform for instructional staff. Another part is to ensure that his/her own personal equipment is what would be expected of a professional skydiving instructor – well maintained and neatly packed. Your jumpsuit should also be well maintained, clean and without excessive wear and damage.

The jumpmaster's jumpsuit is dependent on your own body type. Note that you will probably require more than one jumpsuit to keep up with a fast falling student (you may need a weight belt with lead) or to fall slower with feather-weights. Assess your student's potential fall rate and check log book entries for comments on fall rate.

You should have a helmet and an audible altimeter is a must. For stages 1 - 3, it is recommended jumpmasters wear a wrist-mounted altimeter on the arm-grip hand.

Meeting the student

Act professionally. Introduce yourself to the student and always review the student's previous performance and recent experience: "Hi, I'm <<>>. I'm one of your jumpmasters for your next skydive. Can I see your log book please?

Check for contact lenses (pay special attention to fit of goggles), gloves and general health. Ask some simple questions to get a feel for the student's responses and aptitude.

Exits

Providing a safe spot for our students is a skill that all JMs must have a basic knowledge of. Our students are relying on us to provide a safe learning environment. For Cessna drop zones this is a fairly straight forward process. However the larger the jump aircraft becomes, the more challenging spotting becomes, especially when we need to ensure adequate separation between groups (e.g. a minimum 7 seconds).

To ensure this horizontal separation of exits and openings we should judge this on ground distance covered, not on time. By allowing sufficient ground coverage, or jump run off the wind line will alleviate the problem, as would a second jump run or crosswind spot.

Floating Exits: (Cessna strut or cargo door of a Caravan or Otter etc) Pick up student's arm immediately on exit.

Most two JM exits can rotate downslope. Watch for diving jumpmaster catching up or accelerating into you and creating a hinge effect with the lower jumpmaster ending up above the student (head standing).

Diving Exits: Create a pivot between you and the rear edge of the door to avoid getting door rash. Stay low in the door.

Initiating The Exit: It is important to understand who initiates the student exit and why. It is the responsibility of the JM to initiate the climb-out after determining the exit point. It is the students' responsibility to initiate the exit. This allows the JMs to identify the readiness of the student to exit. A good exit will generally set the tone for the rest of the skydive. There are also legal implications involved if the Instructor initiates the jump when the student is not ready or unwilling to jump.

All efforts should be made to assist the student through their exit however you can never force someone to do something against their will.

Creepering

Creepering all stages is one of the most beneficial training methods for the trainee AFF instructor. It allows you to see the skydive from the JM1 and JM2 slots and to position yourself correctly.

Creepering will develop your ability to demonstrate each stage as “student”. This in turn makes briefing the stage easy as you have a firm picture of each jump and each slot. Practise until you can demonstrate/perform any stage without reference to written material.

Creepering can allow you to experience in advance what it is like to dock on a spinning student.

Awareness Checks

The types of awareness checks come in a variety of forms, hand flashes, tongue pokes, arm waves but fundamentally have the same purpose:

Awareness checks show the JM that the student is not suffering from sensory overload, can read the altimeter and is monitoring their height. A student reading their altimeter and waving off, is demonstrating a level of awareness.

This information allows the JM to “be ahead” of the student and act accordingly to remedy any impending situation especially something as important as loss of height awareness.

Sensory Overload

Sensory Overload is a term you will hear bandied around throughout your instructional tenure. It lies in respect to the arousal level your student may be experiencing. It can affect your student at any stage during the descent Table but is probably more prevalent during the initial and early stages. It can have minimal or a marked affect dependant on the individual but is always caused in a period of high arousal.

A failure of the brain to appreciate, respond appropriately to, or remember all the significant sensory inputs, usually occurring in a situation of high stress and multiple sensory inputs. A student's performance and learning is impaired by the limited perception of what is going on and by the limited recall of what happened.

It is important that you, the Instructor, identify whether the student is affected by sensory overload and help them overcome this through clear and concise instruction along with positive reinforcement.

Appendix - Suggested Training Dives

An ideal course size to do these practice dives is six, which allows two teams doing 3-ways or three teams doing 2-ways in a role-play format. It is important for everyone to take these role-playing dives seriously and to use them to develop set procedures.

The precise Details of what has to be done and who does what may vary from one drop zone to another and the following practice dives may require slight modification to suit them to the procedures used on the particular drop zone. For instance, some training organisations use heel clicks or leg trim as a leg awareness exercise instead of backward movement.

The important thing is that you develop set routines so that everything gets done. Following is one possible arrangement. In the role play each time include:

- Greeting of the student. (Hi, I'm xxxxxxx. I'm your jumpmaster for this dive. Can I see your log book please?)
- JM1 arranges TA/CCA and records rig number etc.
- JM2 gears up the student and does the pin check.
- JM1 takes charge of the dirt dive by indicating altitudes or commencement of skydive (e.g. "You have climbed outside the aircraft. It's now time to say ...")
- Both jumpmasters Stay with the student and shepherd him/her to the aircraft.
- After the skydive, the two jumpmasters go over the debrief before involving the student. JM1 takes charge of debriefing the student.

Practice Dives, Set 1

Stage Two, 3-way, with student rig. The "student" does:

- Good exit and extended PP
- Good forward and leg awareness exercise and turn
- Less perfect forward and leg awareness exercise and turn
- Awareness check by 5,000 feet
- "Student" does not pull; JM 1 pulls ripcord

This jump to be done three times, with trainees rotating round the three positions.

Aims

- Become familiar with exits as JM1 and JM2, as applicable for Stages 1 - 3.
- Demonstrate Stage Two by acting as student. (If you can't demonstrate it, you can't brief it.)
- Monitor Extended PP
- Signal presentation as for Stages 2 and 3
- Take note of what height student commences Tasks
- JM1 deploying for student

If the jump is done from sufficient height, it will probably be possible to go through it twice before pull height. On the second time through, the "student" may perform the manoeuvres a little less perfectly.

Practice Dives, Set 2

Stage Three, 3-way.

- Good exit and PP
- Leg trim and "student" responds to signals from JM2
- Arm trim and "student" responds to signals from JM1
- JM2 grip changes to front after OK from JM1, and signals OK to student
- "Student" backslides - JM1 signals
- JM2 redocks and releases
- "Student" waves off
- JM2 to pull from front

This jump to be done three times, with trainees rotating round the three positions.

Aims

- As for Practice Dive 1, to confirm exits or to extend skills by making exit less than perfect as per Stage 1, 2, or 3.
- Demonstrate Stage Three by acting as student.
- Communication and signal presentation
- Jumpmasters to experience student backslide
- JM2 to have pulled for student from front position

Practice Dives, Set 3

Stage Four and Five, 2-way, with own gear.

- Exit with JM in side-body position (diving or floating)
- JM to rotate over and under student to learn short-axis recovery for any funnelled exit where JM1 is left alone with the student
- After completion, JMs can change roles
- Normal RW break off

Aims

- Learn short-axis recovery to reduce the possibility of instructor on-the-back spinning situation

Repeat dive if necessary.

Practice Dives, Set 4

Stage Five, 2-way, with own gear.

- Dive or float exit, depending on what needs to be practiced

- Demonstrate turn signals
- Re-dock on spinning “student” as per Stage 4 or 5
- Trainees to exchange roles
- Normal RW break off

Repeat dive if necessary.

Practice Dives, Set 5

Stage Seven, 2-way, with own gear.

- Sidebody, dive or float exit, depending on what needs to be practiced
- Demonstrate back loop
- “Student” performs half a loop to a back-to-earth position and holds ankles for three seconds, then back to face-to-earth position.
- Second back loop and jumpmaster repositions

Aims

- Exit practice
- Closing vertical separation as per unstable Stage Four or Stage Seven backloop

This jump should be performed twice, with trainees swapping roles, and can be made more demanding by having the jumpmaster dock on the inverted student and recovering him/her to the face-to-earth position.

Practice Dives, Set 6

Stage Two, 3-way, with student rig.

- Poor exit
- Bad moves
- JM2 to deploy “student’s” main by reaching under if ripcord equipped, or use JM2 handle. This jump to be done three times, with trainees rotating round the three positions.