

Tips for skydiving students on getting your USPA "A" license

by Gary Peek

Version 8/5/09, for Archway Skydiving Center

Skydiving licenses in the US are issued by the United States Parachute Association (USPA, www.uspa.org). This is done by completing the items on the **USPA "A" license Proficiency Card**. You need to get a copy of the Proficiency Card at some point, and keep it with your logbook. The proficiency card was created to insure that student skydivers would have all of the knowledge and skills needed to get an A license, and because many of the items on the proficiency card are not recorded in your logbook, because they are not related to a particular jump, but are instead general knowledge.

You need to be a USPA member to hold a USPA license, so you will need to do this as soon as you can. You will begin receiving the association's official monthly magazine, called *Parachutist*. You also need to obtain the USPA publication **Skydivers Information Manual (SIM)** as soon as you can because you will need much of the information in it. It can be purchased from your drop zone, from USPA headquarters, or downloaded free from the USPA web site at www.uspa.org.

Note: Much of the information in the SIM can be searched for and read when needed, but I recommend reading the entire FAR part 105, "Parachute Operations". It is not very long.

Some drop zones follow the USPA ISP (Integrated Student Program) listed in the SIM. Others have a student progression written with the jumps and the things to complete on each jump in a particular order. If the drop zone where you jump uses the USPA ISP (Integrated Student Program) you will want to use the "4 page Proficiency Card". If the drop zone where you jump uses something other than the ISP you will want to use the "2 page Proficiency Card". *Neither program or its relevant Proficiency Card is better or worse than the other*. It is just that the "4 page card" follows the ISP very closely and is easier to use with that program. You can think of the "2 page Proficiency Card" as a "generic" card.

You can begin work on your Proficiency Card at any time after you know your goal is to be a licensed skydiver, but there are not many items on the card that you will be able to do until you have a number of jumps. **What you need to do is to look at the card after each jump to see if you have completed any of the items, and ask your instructor to sign any item you have done on that jump.** Any USPA instructional rating holder can sign off on most these items, either an "Instructor", or "Coach".

Some of the items you will need to ask your Instructor or Coach to help you with. Some of the items will involve someone telling you or showing you what the item refers to. Once you learn how to perform this item you can go to another Instructor or Coach and show them that you know how to do this item, and they can sign off on it.

Tips for specific items on the proficiency card

Dive a minimum of 100 feet after another skydiver and safely dock without assistance...

This requirement is to insure that you can safely perform something that you will need to do when you start jumping with other relatively inexperienced skydivers. It is to make sure you can dive down and catch someone that leaves the plane before you without crashing into them.

Plan and independently execute a breakoff from a group skydive....

This is to make sure you can track away from a group skydive far enough and accurately enough. "Plan and independently execute" means that you have decided what your breakoff altitude will be, and have turned and tracked away without prompting from others on the jump.

Locate and open clear of other jumpers and wave off...

This means looking around and waving before pulling, which is more than just tracking off and pulling. You will probably be able to do this on one of the jumps meeting the previous requirement.

Plan and fly a landing approach that promotes smooth traffic flow...

This is to insure you know how to fly your canopy in the proximity of others and will be observed on a skydive where you are landing at approximately the same time and area as others.

Land within 20 meters of a preselected target on at least 5 jumps.

If there is a space in your logbook for "distance to target", enter a measurement, not just "on target" or "OK". Instructors may enter this for your first few jumps because it is not very important at that point, but when you are guiding yourself under canopy it is important.

Once you are guiding yourself to the landing area completely by yourself you can begin to meet this landing accuracy requirement. You may still have a student radio on, but if the radio person does not give you any guidance, it counts.

20 meters is about 20 yards. Learn to walk in paces that equal approximately one yard, and when you think you have landed within that distance from our target, walk to the target with these paces to see if you are close enough.

You do not have to use any particular target as your target for meeting this accuracy requirement! If you want to, put something like a Frisbee or weighted paper plate in the landing area in any suitable location. The target should simply be pre-declared by you.

Perform rear-riser turns with the brakes set and released.

The idea behind this is to know how to quickly turn away from another canopy if you are on a collision course right after opening, because there may be no time to unstow the brakes before needing to steer. Then unstow the brakes and practice steering with the rear risers again.

Above 1000 feet perform a maximum performance 90 degree toggle turn followed by a turn of at least 180 degrees in the opposite direction. ... and ... Above 1000 feet perform front riser dives and turns.

These maneuvers are intended to familiarize you with how quickly a canopy can descend (dive at the ground) if they are controlled in a radical manner. The idea is for you to look at your altimeter, do the maneuver, look at your altimeter again, and then realize that if you do one of those maneuvers too close to the ground, you may be in great danger. However, if you are jumping a large student canopy with a low wingloading, it is unlikely that you will gain this understanding, because larger canopies do not turn and dive like smaller ones. When you begin jumping smaller canopies is when you will want to repeat these maneuvers.

Accurately predict the presence and effects of turbulence in the landing area.

You will need to look at some diagrams of turbulence that someone has drawn, and then describe the turbulence that you would expect at a particular landing area with its adjacent obstacles and with its particular wind direction and speed on that day. In other words, "Where is the turbulence today?"

Jump and deploy while stable within 5 seconds after exit from 3500 feet AGL.

This requirement is to insure that you can do a exit suitable for a precautionary exit from an aircraft if the pilot tells the jumpers they need to get out low for some reason. A normal static line progression 5 second delay is close to meeting this requirement, but it is usually done at 4000 feet or higher, so technically it doesn't. This requirement is particularly important for AFF students who may have never jumped at anything but full altitude from a large aircraft, and may be nervous about exiting lower.

Demonstrate the understanding, use, and disconnection of a reserve static line (RSL).

You may need to see a drawing of this to really understand it. Having someone show you how a static line rig works and comparing it to reserve static line operation will help.

Calculate the wing loading of both main and reserve canopies and compare the sizes against the manufacturer's published recommendation.

You will need to get the owners manual for the parachutes to do this unless you can find this information in a gear catalog. Wingloading equals jumper suspended weight divided by canopy size in square feet. Jumper suspended weight is your weight plus all gear you are jumping with. (Technically it does not include the weight of the main canopy, but most people include this anyway.)

Demonstrate the understanding and use of an automatic activation device.

You will need to read the AAD owners manual for the AAD you expect to use! **There is no substitute for reading the manual.** AADs are complex devices with a number of subtle features that many skydivers do not understand.

Check equipment for another skydiver.

This is what you will need to know if someone asks you for a "pin check". It is more than a pin check. It is checking everything that can be checked on gear to see that it is safe to jump.

Perform manufacturer-recommended owner service on a canopy release system.

You will need to find this information in a harness/container manufacturer's owners manual. Riggers will usually perform this maintenance as reserve repack time, but most manufacturers recommend it every 30 days. It consists of pulling the cutaway handle, inspecting it, cleaning and lubricating it, reinstalling it, and checking the 3-ring assembly for wear or damage.

You will also need to find someone willing to let you do this to their rig. An old unused rig can be used for this if it has a similar release system.

Change or adjust a main (container) closing loop.

This is something you will need to eventually do to your container when you get your own gear. Riggers can do it for you, but you will need to do it between reserve repack cycles too.

Demonstrate understanding of seat belt use and applicable FARs.

Note: When and how you see seat belts used at most drop zones is not the same as what the FARs state. You will need to read the FAR part 91 about seat belt usage. Tip: There is nothing in the FARs that specifies wearing your seatbelt until 1000 feet.

Identify local runway headings, lengths, and aircraft approach and departure patterns.

This is so you know how to fly your canopy in the presence of aircraft, especially those that are not the jump aircraft. The approach and departure patterns are where you can expect to find aircraft at an airport, and are places you want to avoid flying your canopy. These areas will be different for each different wind direction.

Using an aviation winds aloft forecast, select the correct exit and opening point.

The idea here is to be familiar with not just simple spotting, but with the planning that precedes the spotting, which is knowing where the spot is. If the upper winds are very low, the exit and opening points will be about the same, but when the upper winds are high you may drift a significant distance in freefall. The winds aloft forecast will help you determine the freefall drift.

Recite cloud clearance and visibility requirements for above and below 10,000 feet MSL.

You will need to read FAR part 91 related to aircraft Basic VFR flight (Visual Flight Rules) Weather Minimums, or FAR part 105 related to cloud clearances, and memorize it. Note: These visibility requirements are for aircraft, not just skydiving.

In routine jump conditions, plan with a jump pilot and spot without assistance.

This is a bit more than just knowing how to spot. This is to make sure that you know how to communicate to the pilot how and where they are to fly the plane while you are spotting and exiting.

Resources for student skydivers

compiled by Gary Peek

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This document (in a non-dropzone specific version), as well as other instructional related documents, can be found at www.skydivestlouisarea.com/instruction.

Videos and still pictures (that I might eventually take of you) can be found at www.skydivestlouisarea.com/archway. There is no link from the main page so you will need to use this link.

Other skydiving web sites

United States Parachute Association	Our national skydiving organization	www.uspa.org
Dropzone.com	Most popular skydiving forums plus much more	www.dropzone.com
Parks College Parachute Research Group	Gary Peek and Dr. Jean Potvin	www.pcprg

In addition to the United States Parachute Association there are other national skydiving organizations that have good resources.

British Parachuting Association documents as of January 2009

BPA canopy control related documents.

Currently at: www.bpa.org.uk/doc_pages/canopy

If these documents move you may need to go to www.bps.org.uk and find them.

*The following manual in particular will be helpful to the student skydiver at any point in their progression and is **highly recommended**.*

CH Manual (Canopy Handling Manual)

Australian Parachute Federation documents as of January 2009

Currently at: www.apf.asn.au/apf-all_documents_and_forms.html

If these documents move you may need to go to www.apf.asn.au and find them.

All of the **Safety Posters** are good resources and *good review* once you have learned about the subject:

Currently these are the posters available:

2 canopies deployed	3-ring maintenance
Safe Skydiving is an Attitude	Cutaway! Have You Thought of all the Questions?
Freefly equipment	Out of the Corner
Premature deployment	Low turns do not always impress...
Reason model	Attention - Tired...?
Propeller Warning	Parachute Landing Area
SOS Cutaway Procedures	Cypres Info for Pilots
Setting Your Altimeter and/or AAD	Pre-Jump Equipment Check
Use of Rapide Links	Learn from the Mistakes of Others
Track!	Wing Loading
Time/Altitude Awareness	Beware the Borrowed Gear Merry Go Round
CASA - Be Alert for Skydivers	

When you get your own gear you are like to have what is called a "high performance canopy" even though it may be considered large for your body size (having a low wing-loading). The following document will help you understand the differences in how these canopies will fly compared to the student canopy you have been using.

High Performance Canopy Handling