



Category G Training Aid

All training to be conducted by instructors of the:



Category G

Four Jumps with One USPA AFF Instructor or Coach

Freefall skills in Category G address group skydiving maneuvers. They are outlined here for the discipline of formation skydiving (flat, or belly flying) but can be performed in other orientations with a USPA Coach knowledgeable in those techniques. The same performance and advancement criteria for maneuvering, docking, breakoff, and gaining separation for a safe opening apply, however. In Category G, you will review, in more in depth, the procedures for avoiding and responding to canopy collisions, which are always more of a risk in jumping with groups. By now, you should be looking for traffic and steering with rear-risers before releasing your brakes. After opening, you will explore the performance envelope of the ram-air canopy to prevent surprises near the ground. Practice includes maximum-performance turns, reverse turns, and keeping the wing in balance during performance maneuvers to avoid a line-twist. You will learn to feel the turn. You will review how to avoid tree landings and what to do if it is inevitable. By now, you should be packing with minimal assistance, but USPA recommends supervision until your A-License. Along with practicing packing, you will learn how to inspect the equipment for wear and how to prevent it. Before advancing, you should understand the responsibilities of the FAA rigger, who maintains most items. All skydivers need to respect the power of various kinds of weather, which begins with understanding basic weather patterns and reading the danger signals. A pilot or instructor advises you on practical ways to predict the kind of weather that could compromise your safety.

Learning and Performance Objectives

- Group exits
- Floater position
- Forward and backward movement
- Adjusting fall rate
- Start and stop
- Docking
- Maximum-performance canopy turns
- Canopy collision avoidance and response review
- Tree landing review
- Equipment maintenance inspection
- Weather for skydivers

Rules and Recommendations

(Note: An FAA rigger should teach this section.)

1. Read and discuss FAR 65.125 through FAR 65.133 below with an FAA rigger:

It requires at least an FAA senior rigger to maintain and repair the parachute system.

- a. A certificated senior parachute rigger may:
 - (1) Pack or maintain (except for major repair) any type of parachute for which he is rated; and
 - (2) Supervise other persons in packing any type of parachute for which that person is rated.
- b. A certificated master parachute rigger may:
 - (1) Pack, maintain, or alter any type of parachute for which he is rated; and
 - (2) Supervise other persons in packing, maintaining, or altering any type of parachute for which the certificated parachute rigger is rated.
- c. A certificated parachute rigger need not comply with the following (relating to facilities, equipment, performance standards, records, recent experience, and seal) in packing, maintaining, or altering (if authorized) the main parachute of a dual parachute pack to be used for intentional jumping.
- d. No certificated parachute rigger may exercise the privileges of his certificate unless he has at least the following facilities and equipment available to him:
 - (1) A smooth top table at least three feet wide by 40 feet long.
 - (2) Suitable housing that is adequately heated, lighted, & ventilated for drying & airing parachutes.
 - (3) Enough packing tools & other equipment to pack & maintain the types of parachutes serviced.
 - (4) Adequate housing facilities to perform his duties and to protect his tools and equipment.



- e. No certificated parachute rigger may:
 - (1) Pack, maintain, or alter any parachute unless he is rated for that type;
 - (2) Pack a parachute that is not safe for emergency use;
 - (3) Pack a parachute that has not been thoroughly dried and aired;
 - (4) Alter a parachute in a manner that is not specifically authorized by the Administrator or the manufacturer;
 - (5) Pack, maintain, or alter a parachute in any manner that deviates from procedures approved by the Administrator or the manufacturer of the parachute; or
 - (6) Exercise the privileges of his certificate and type rating unless he understands the current manufacturer's instructions for the operation involved and has:
 - (a) Performed duties under his certificate for at least 90 days within the preceding 12 months;
 - (b) Or shown the Administrator that he is able to perform those duties.
- f. Each certificated parachute rigger shall keep a record of the packing, maintenance, and alteration of parachutes performed or supervised by him. He shall keep in that record, with respect to each parachute worked on, a statement of:
 - (1) Its type and make;
 - (2) Its serial number;
 - (3) The name and address of its owner;
 - (4) The kind and extent of the work performed;
 - (5) The date when and place where the work was performed; and
 - (6) The results of any drop tests made with it.
- g. Each person who makes a record under the section above shall keep it for at least two years after the date it is made.
- h. Each certificated parachute rigger who packs a parachute shall write on the parachute packing record attached to the parachute the date and place of the packing and a notation of any defects he finds on inspection. He shall sign that record with his name and the number of his certificate.
- i. Each certificated parachute rigger must have a seal with an identifying mark prescribed by the Administrator, and a seal press. After packing a parachute, he shall seal the pack with his seal in accordance with the manufacturer's recommendation for that type of parachute.

2. Read and discuss FAR 105.43 with an FAA rigger:

No person may conduct a parachute operation using a single-harness, dual-parachute system, and no pilot in command of an aircraft may allow any person to conduct a parachute operation from that aircraft using a single-harness, dual-parachute system, unless that system has at least one main parachute, one approved reserve parachute, and one approved single person harness and container that are packed as follows:

- a. The main parachute must have been packed within 180 days before the date of its use by a certificated parachute rigger, the person making the next jump with that parachute, or a non-certificated person under the direct supervision of a certificated parachute rigger.
- b. The reserve parachute must have been packed by a certificated parachute rigger:
 - (1) Within 180 days before the date of its use, if its canopy, shroud, and harness are composed exclusively of nylon, rayon, or similar synthetic fiber or material that is substantially resistant to damage from mold, mildew, and other fungi, and other rotting agents propagated in a moist environment; or
 - (2) Within 60 days before the date of its use, if it is composed of any amount of silk, pongee, or other natural fiber, or material not specified above.
- c. If installed, the automatic activation device (AAD) must be maintained in accordance with manufacturer instructions for that automatic activation device.



Equipment

(Note: An FAA rigger should conduct this session.)

1. Detailed identification and inspection of high-wear items requiring rigger maintenance:
 - a. Pilot-chute and deployment handle:
 - (1) Look for broken stitching around the apex and the seam where the pilot-chute canopy fabric and mesh meet.
 - (2) Check for security at the bridle attachment point.
 - (3) The fabric and mesh should be in good condition; both eventually wear out.
 - b. Bridle Velcro:
 - (1) Velcro anywhere degrades with use and needs to be replaced every 100-250 uses.
 - (2) Bridle Velcro is particularly important, because if it comes loose, it can cause a premature deployment.
 - (3) Velcro should be clean, dry, and free of debris.
 - c. Deployment bag:
 - (1) Look for distortion in the grommets, especially at the bridle, and fabric damage around their edges.
 - (2) Check the loops that hold the line stow bands.
 - (3) If Velcro is used, replace it as necessary.
 - d. Closing pin:
 - (1) Check that the loop holding the closing pin to the bridle is secure and not being cut by the eye of the pin.
 - (2) Check for nicks or corrosion on the pin and replace it if any appear.
 - e. Bridal attachment:
 - (1) Look for wear where the bridle attaches to the canopy.
 - (2) Look for broken stitching on the canopy itself where it is reinforced for the bridle attachment loop or ring.
 - f. Likely areas of damage on the top center skin, end-cells, and stabilizers:
 - (1) Check for small holes on the top skin where the bridle attachment stop-ring has caught fabric in the bag's top grommet (avoidable with good packing technique).
 - (2) Look for wear on the top skin and end-cells caused by contact with sharp objects or stickers.
 - (3) Look for wear in and around the reinforcements in the stabilizers that contain the slider stops.
 - (4) Look for broken or missing stitching along the seams.
 - g. Slider:
 - (1) Inspect for distortion in the slider grommets and wear around their inside edges.
 - (2) Sliders are important, high stress components and should be maintained to the highest standard.
 - h. Lines:
 - (1) Look for wear anywhere along the lines, but especially where the slider grommets contact metal connector links.
 - (2) Line damage at the links calls for line replacement, but the rigger can also advise the jumper about link choices, protection, and habits that minimize damage.
 - (3) Lines sometimes shrink unevenly over time.
 - (4) All lines eventually require replacement; refer to the manufacturer's recommendations.
 - i. Slider bumpers (metal connector links):
 - (1) Slider bumpers protect the slider grommets and lines from damage by taking it themselves; most require periodic replacement.
 - (2) Slider bumpers need to be tight on the link or secured to prevent them from sliding up the lines and stopping the slider.



- j. Brake system:
 - (1) When Velcro is used, placing the toggles on the risers immediately after landing prevents Velcro damage and tangles.
 - (2) Velcro needs to be replaced when worn.
 - (3) Velcro and general use wears the lower brake lines, which a rigger can easily replace.
 - (4) Examine the brake lock eye for damage and wear.
 - (5) Look at the attachment point for the keeper ring, including the attachment ring stitching on the opposite surface of the riser.
 - (6) Inspect tuck-tab toggle keepers for security.
 - k. Riser release system:
 - (1) Look for wear in the loops holding the rings and the white retaining loop, especially if you drag your rig when stowing the lines (not advised).
 - (2) Be sure that any service bulletins on risers for the system have been completed.
 - (3) Check the fittings on both ends of the cable housings for security.
 - (4) Look for kinks in the release cable where it contacts the white retaining loop, which may indicate a problem with hard openings or the design & construction of the three-ring assembly.
 - (5) Check the front and back of the riser webbing for fraying or strains around the edges of the grommets.
 - (6) Look for broken or loose tacking on the cable housings.
 - (7) Check riser inserts (for cutaway cable ends) if installed.
 - l. Riser covers:
 - (1) Replace any retaining Velcro when it loses tackiness.
 - (2) Replace distorted tuck flaps when they become ineffective (happens with use).
 - m. Main container closing grommets:
 - (1) Inspect for distortion and fabric damage around the edges.
 - (2) Feel for severe distortion or breakage of the plastic stiffener inside the fabric where the grommet is set.
 - n. Main and reserve pin covers:
 - (1) Replace Velcro when it fails to stay firmly attached.
 - (2) Replace plastic stiffeners when distortion from use renders them ineffective.
2. Store the parachute in a cool, dry, dark place.
- a. Heat weakens AAD batteries; cars are too hot for safe prolonged storage in the summer.
 - b. The ultraviolet rays of the sun degrade nylon.
 - c. Moisture:
 - (1) Corrodes hardware (very dangerous, since rust degrades nylon)
 - (2) Promotes mildew (undesirable but harmless to nylon)
 - d. Many chemicals and acids damage parachute materials.
 - e. Heat may weaken elastic stow bands.
3. Premature deployments become more dangerous in groups.
- a. AADs:
 - (1) Use caution when wearing an AAD, especially near an open aircraft door and during climb-out.
 - (2) Adhere strictly to the AAD manufacturer's service standards:
 - (a) To improve their chances for correct operation
 - (b) To help prevent premature AAD activation
 - (c) To comply with the law
 - b. Remain clear of the area directly above and below another jumper, in case his or her parachute activates prematurely from the AAD or other unplanned event.
4. Pack one main parachute without assistance.



Spotting and Aircraft

(Note: An experienced jump pilot or USPA AFF Instructor should teach this section.)

1. Read and discuss the information on USPA recommendations regarding weather below (SIM Section 5-5) with an experienced jump pilot or USPA AFF Instructor:
 - a. Weather conditions hazardous to skydivers.
 - (1) Fronts approach with much warning but can catch the unaware off guard.
 - (a) Some fronts are preceded by a gust front (a line of sudden and severe weather).
 - (b) Frontal approach and passage may be associated with rapid and significant changes in the strength and direction of the winds-aloft and on the surface.
 - (2) On calm, hot, humid days, thunderstorms can spontaneously generate and move in unpredictable patterns.
 - (3) Dust devils are mini-tornadoes that spontaneously generate on days of high thermal convection activity.
 - b. Practical methods to observe weather and where to obtain forecasts on approaching weather:
 - (1) The Weather Channel
 - (2) www.weather.com
 - (3) TV weathercasts
 - (4) Pilot assistance (legally responsible to know the weather conditions before flight)
 - (5) Continuous observation
2. Select the spot and guide the pilot to the correct position without assistance in routine weather conditions.

Exit and Freefall

1. Group exits:
 - a. Practice for an efficient climb-out and launch:
 - (1) Each jumper in a group has an assigned exit position and must know that position before climb-out.
 - (2) The exit position should include specific, exact foot and hand placement for the best launch position and presentation of hips and limbs into the relative wind.
 - (3) The jumpers count together with body movement, where possible, for a simultaneous or near-simultaneous launch.
 - b. Exit into a neutral "box" body position and hold aircraft heading until stable (two to five seconds).
 - c. Relax and confirm stability prior to turning towards your coach.
 - d. Establish stability independently on exit before turning toward your partner.
 - e. Exit grips:
 - (1) If taken, grips should allow all jumpers to leave in a natural flying position.
 - (2) Main lift web and chest strap grips are counterproductive for most belly-to-earth group exits.
2. Forward and backward movement (belly to earth):
 - a. Use legs only for forward movement and steering:
 - (1) Extending both legs tilts the jumper head-low and begins a slide in that direction.
 - (2) Extending one leg more than the other causes a turn in the opposite direction:
 - (a) Extending the right leg causes a left turn.
 - (b) Extending the left leg causes a right turn.
 - b. Maintain both arms in neutral during forward movement and docking.
 - c. Extend both arms and push down for backward movement.
 - d. Extending the arms slightly to take a grip will counter forward movement but cause backsliding if initiated too soon or for too long.



3. Adjusting fall rate (belly to earth):
 - a. Increase vertical freefall speed by streamlining:
 - (1) Hips forward
 - (2) Shoulders back
 - (3) Relax abdominal muscles
 - b. Slow freefall speed by maximizing surface area:
 - (1) Cupping the shoulders around the sternum
 - (2) Rounding the spine (cupping the abdomen)
 - (3) Extending arms or legs to counterbalance and maintain a level attitude
 - c. When recovering altitude from below the level of a formation:
 - (1) Turn 90 degrees relative to the formation to keep it in view.
 - (2) To avoid a collision, remain clear of the area immediately below and above any group.
 - d. Recognize the visual cues for level approach (on exit, regardless of the horizon):
 - (1) Backpack in sight: come down
 - (2) Front of the leg straps in sight: come up
 - e. Maintain altitude awareness.
4. Docking:
 - a. Dock using a level approach.
 - b. Once docked, arch across the shoulders to maintain the fall rate (elbows up) and stay level with your partner or the formation.
 - c. Extend both legs to counter any tension created in the formation when holding grips.
 - d. Maintain altitude awareness.
5. Breakoff:
 - a. Check altitude every four or five seconds and after each maneuver.
 - b. Breakoff without prompting.
 - c. Plan the breakoff altitude to allow enough time to track 50 feet.
 - d. The most positive way to signal breakoff is to turn and track.
 - (1) As a safety back-up in Categories G and H:
 - (a) If the coach waves their arms, immediately turn & track to the planned deployment altitude.
 - (b) If the coach deploys, deploy immediately without tracking.
 - (c) Deploy at planned altitude whether or not you have turned or tracked.
 - (d) Never rely on the USPA Coach for breakoff or deployment cues.
 - (2) You are always responsible to breakoff and open at the planned altitude on jumps with the USPA Coach, as well as others after you get your license.
 - e. When tracking, establish and maintain the correct heading for the radius of the formation.
 - f. For beginners, tracking moderately in a straight line in the right direction is more effective than going fast in a curve or in the wrong direction. Breakoff high enough to gain separation.
6. For additional requirements for breakoffs from freeflying jumps, see SIM Section 6-2:
 - a. Plan higher breakoffs than usual.
 - b. Transition from fast-fall rate to normal tracking for separation gradually in case there is a skydiver above the formation in a high-speed descent (like diving for a coin at the bottom of a pool).
 - c. Avoid maneuvers near breakoff that increase vertical separation.
 - d. It is as important to slow down after breakoff as it is to get separation from other jumpers.
7. To avoid hard openings, slow down to a minimum freefall velocity before deploying by maintaining a neutral belly-to-earth body position.



Emergency Procedure Review

Note: A USPA AFF Instructor should teach this section. A canopy formation specialist is also a good source.

1. Review and discuss canopy collision avoidance with a USPA Instructor or a canopy formation specialist:
 - a. Jumpers must avoid collisions with other jumpers under open parachutes.
 - b. The best way to avoid a collision is to know where other nearby jumpers are at all times while under canopy, especially during opening. Steer with the rear-risers to avoid them.
 - c. Always look in the direction of a turn before initiating it and during the turn.
 - d. Most canopy collisions occur soon after deployment when two jumpers open too close to each other, or below 1,000 feet while in the landing pattern (base-final intersection)
 - e. Higher breakoff altitudes, better planning, and tracking farther can help ensure clear airspace during deployment.
 - f. If a pending head-on collision is imminent, in most cases both jumpers should steer their canopies clear by turning to the right unless it is obvious that steering left is necessary to avoid the collision (both jumpers are more offset towards the left).
2. Study and discuss the USPA recommended emergency procedures for canopy collision response:
 - a. Both of the jumpers should flare to half-brakes and assume the PLF body position as you would if landing in a tree or power lines to protect your face and operation handles from impact:
 - (1) Chin down to your chest, legs slightly bent and pressed tightly together, arms and elbows tucked in tightly against the sides of your body, covering your face and operation handles
 - b. This also helps prevent you from contacting the other jumper's suspension lines, which can cause serious injuries if the canopy has small diameter suspension lines.
 - c. Avoid hitting the suspension lines of the other canopy or the other jumper, if possible.
 - d. Check altitude with respect to the recommended minimum cutaway decision & execution altitude.
 - e. Jumpers should know their altitude at all times, because it will often dictate the course of action.
 - f. When entanglements occur, jumpers must be prepared to react quickly and creatively.
 - g. In many cases, the emergency is one that cannot be prepared for in advance; it may even be a problem no one imagined could happen.
 - h. If two jumpers collide and entangle, they must communicate their intentions before taking action.
 - (1) Jumpers should be specific in discussing their intentions.
 - (2) Communications may be difficult if one or both jumpers are wearing full-face helmets.
 - i. If the entanglement occurs with sufficient altitude, the jumpers should attempt to clear the entanglement by following lines out before initiating emergency procedures.
 - j. If altitude allows, emergency procedures should proceed only after acknowledgment by others.
 - (1) The jumper above can strike the jumper below during a cutaway unless clear or ready for it.
 - (2) The jumper below can worsen the situation for the jumper above by cutting away before ready.
 - k. If both jumpers are cutting away and altitude permits, the second jumper should wait until the first jumper clears the area below.
 - l. The first jumper should fly from underneath in a straight line after opening.
 - m. In the event of multiple cutaways and if altitude allows, jumpers should stagger reserve openings to avoid possible canopy collisions.
 - n. If in a canopy entanglement with another jumper below 1,000 feet and both canopies are uncontrollable and it appears the canopies cannot be separated in time for a safe landing, it is too low for a safe cutaway and may become necessary at some point for one or both jumpers to just deploy their reserves instead.
 - o. If both jumpers are suspended under one flying canopy at a low altitude, it may become necessary to land with only that canopy.



3. Read and discuss tree landing avoidance with a USPA AFF Instructor:
 - a. Avoid trees by carefully spotting clear of large areas of trees or other obstacles covering more than 32,292 square feet, opening high enough to clear them in the event of a bad spot, and planning a good approach pattern for the conditions.
 - b. Fly in maximum glide to reach a clear area.
 - c. Continue steering to avoid trees but avoid sharp turns near the ground.
 - d. Make any low-altitude avoidance turns from braked flight to avoid an equally dangerous dive following a turn from full flight.
4. Review and discuss the USPA recommended emergency procedures for an unavoidable tree landing:
 - a. Before landing, steer to face into the wind.
 - b. With a ram-air canopy, flare to half brakes and hold the toggles there until tree contact.
 - c. Prepare for a hard landing by assuming the PLF body position; often the jumper passes through the tree and lands on the ground.
 - d. Protect your body.
 - (1) Keep feet and knees tightly together.
 - (2) Do not cross your feet or legs.
 - (3) Cover and protect your face with your hands while holding both of your elbows tightly together against your stomach to protect your underarms.
 - e. Try to steer for the middle of the tree, then hold on to the trunk or main branch to avoid falling.
 - f. Most tree landings are survivable, but accidents may also occur during the recovery.
 - g. The potential dangers of landing in a tree extend until you are rescued and safely on the ground.
 - h. If suspended above the ground, stay in the tree and wait for help to get down. Do not attempt to climb down from a tree without competent assistance from rescue personnel or properly trained drop-zone staff.

Canopy

1. Performance-turn initiation and completion with balance:
 - a. Enter a turn only as quickly as the canopy can maintain balance (center of lift over the center of load) during the turn.
 - b. Surging, lurching, or line-twists indicate a turn entered too quickly.
 - c. A canopy is more susceptible to collapse from turbulence during entry and exit from a turn.
 - d. The canopy dives sharply after a maximum-performance turn.
2. Reverse-turns:
 - a. You must know the maximum safe rate of turn entry for each canopy you jump.
 - b. Practicing reverse-turns helps you determine the maximum safe toggle turn rate before inducing a line-twist.
 - c. Make a smooth, but deep, turn at least 90° to the right and then reverse toggle positions smoothly, but quickly, for a 180° turn to the left (four sets recommended to complete Category G).
 - d. A line-twist at pattern altitudes may be unrecoverable in time for a safe landing, particularly with a higher wing loading.
 - e. In case you induce a line-twist, you should complete all maximum-performance turns above the 2,500-foot decide-and-act altitude for a cutaway.
3. The potential for collision with other jumpers increases when making performance maneuvers in traffic or near the ground (review):
 - a. Other jumpers may be focused more on the target than on traffic.
 - b. The lower jumper has the right of way.
 - c. It takes only one jumper to avoid a collision.
 - d. Jumping a faster canopy requires more attention to traffic.
4. Accumulate two unassisted landings within 65' of a planned target (total of five required for A-License)



Category G Quiz

(Must be passed before Category G-1 jump.)

- 1. What is the primary directional control when moving forward to dock in freefall?**
 - a) Arms
 - b) Legs
 - c) Shoulders

- 2. What is the minimum breakoff altitude for freefall in groups of five or fewer?**
 - a) 1,500 feet above planned deployment altitude.
 - b) 2,000 feet above planned deployment altitude.
 - c) 1,000 feet above planned deployment altitude.

- 3. What is the danger of entering a toggle turn too quickly?**
 - a) Stall
 - b) Line-twist
 - c) Line over

- 4. What does a canopy do after completing a maximum input toggle turn?**
 - a) It stalls.
 - b) It planes out.
 - c) It dives.

- 5. What are the three biggest dangers of a hard toggle turn near the ground?**
 - a) 1: line-twist; 2: collision with jumpers; 3: collision with the ground
 - b) 1: stall; 2: collision with jumpers; 3: collision with the ground
 - c) 1: line-twist; 2: loss of control; 3: stall

- 6. What are the first things to do in the event of a collision & entanglement w/another jumper?**
 - a) Check altitude and establish communication.
 - b) Clear entanglement and check condition of other jumper.
 - c) Cutaway and deploy reserve.

- 7. What is the most critical aspect of closing the main container?**
 - a) Closing pin loop is as far up the closing pin as possible.
 - b) Bridle routing and placement.
 - c) Orientation of closing pin.

- 8. Why is it a bad idea to drag the harness and container system when stowing the lines?**
 - a) Foreign objects could be caught in the lines.
 - b) It causes unnecessary wear on the three-ring release webbing and loops.
 - c) Harness and container fabric colors will fade faster.

- 9. When Velcro is used on the brake system, why is it a good idea to place your toggles back on the Velcro after you land?**
 - a) It covers the hook Velcro, which can damage other components, and prevents tangles.
 - b) It regenerates the Velcro mechanism.
 - c) It will prevent future brake fires.

- 10. Who is responsible for maintaining a main parachute system?**
 - a) The owner of the system
 - b) The main parachute manufacturer
 - c) An FAA rigger



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- 11. Why is it bad to leave a parachute in the sun?**
- a) Ultraviolet rays degrade nylon.
 - b) Nylon overheats easily.
 - c) The colors will fade prematurely.
- 12. What damage could occur from storing a parachute for prolonged periods in a car during the summer?**
- a) Car exhaust fumes degrade materials.
 - b) Nylon retains folds and will not open properly.
 - c) Shorter life for AAD batteries, stow band degradation.
- 13. What happens to Velcro touch fastener when it is used frequently?**
- a) It loses tackiness.
 - b) Its durability increases.
 - c) Nothing.
- 14. What happens to stiffened tuck flaps that are frequently used?**
- a) Distortion
 - b) Strengthening
 - c) Nothing
- 15. Who publishes and enforces rules regarding parachute packing and maintenance?**
- a) FAA
 - b) USPA
 - c) Parachute manufacturers
- 16. What may result if recovering altitude (floating up) under a freefall formation?**
- a) Collision with formation, funnel.
 - b) Premature AAD fire.
 - c) Formation will re-form quicker.
- 17. What extra consideration is required when wearing an AAD near the open door of an aircraft or when climbing out?**
- a) Aircraft's magnetic field could damage the AAD.
 - b) No extra consideration is required.
 - c) AAD activation near the open door of an aircraft presents a dangerous situation.
- 18. Why is it important to remain clear of the area directly above and below others in freefall?**
- a) To comply with FAA regulations.
 - b) To minimize outcome of accidental AAD activation or other unplanned event.
 - c) To maintain clear line of sight with the ground at all times.
- 19. Why is it important to maintain an automatic activation device to the manufacturer's standards?**
- a) To improve their chances for correct operation, to help prevent premature AAD activations, to comply with the law.
 - b) To ensure warranty coverage from the manufacturer.
 - c) It will not function otherwise.
- 20. What is the correct response to a canopy entanglement with another jumper below 1,000 feet if it appears the two canopies cannot be separated in time for a safe landing?**
- a) Cutaway and prepare to PLF.
 - b) Cutaway and deploy the reserve.
 - c) Deploy the reserve.

21. Describe your procedure for landing in trees:

- a) Face into wind, prepare for PLF, flare to half brakes, protect face & underarms, and wait for help.
- b) Cutaway 5-10 feet above top of trees, PLF.
- c) Use any maneuver necessary to avoid landing in trees.

22. What does a tall cumulus cloud indicate?

- a) Calm weather
- b) Thunderstorms in the area
- c) High temperatures

23. What is the most dangerous part of an incoming front for aircraft and skydivers?

- a) Thunderstorms in the gust front; rapid and significant changes in winds.
- b) Colder temperatures.
- c) Higher barometric pressure can damage altimeters and AADs.

24. How does a canopy's air speed, ground speed, and descent rate change with an increase in density altitude?

- a) Each will decrease.
- b) Each will increase.
- c) No change will occur.

Advancement Criteria

Aircraft and spotting

- Spot the aircraft, including all procedures, without assistance.

Exit and Freefall

- Two re-docks from ten feet without assistance
- Two re-docks requiring an adjustment in fall rate (one slow-fall and one fast-fall)
- Breakoff at planned altitude without prompting
- Track at least 50 feet within ten degrees of the planned heading

Canopy

- Four maximum-performance reverse canopy turns (two right and two left)
- Two unassisted landings within 65 feet of the target (jumps from previous categories count toward accuracy requirements)

Equipment

- One complete pack job without assistance



Category G Dive Flows

Four Jumps with One USPA AFF Instructor or Coach

G-1 Freefall Dive Flow

- Perform all spotting procedures without assistance
- Coach observes the spot to ensure safety.
- Review front-floater exit position until successful.
- Check in and initiate count after coach OK.
- Face direction of flight until stable (2-5 seconds).
- Turn 90° and coach moves into position and docks
- Check altitude, nod, and receive nod from coach.
- Move backward five feet using "start, coast, stop."
- Coach adjusts levels as necessary.
- Check altitude, nod, and receive nod from coach.
- Move forward using start, coast, & stop w/in arm's reach. No grips. Coach adjusts levels as needed.
- Check altitude, nod, and receive nod from coach.
- Move backward ten feet using "start, coast, stop."
- Coach adjusts levels as necessary.
- Check altitude, nod, and receive nod from coach.
- Move forward using start, coast, & stop w/in arm's reach. No grips. Coach adjusts levels as needed.
- Check altitude every five seconds or after each maneuver, whichever one comes first.
- Repeat forward and backward movement, increasing distance in 5' increments until 6,000 ft.
- Shake head, "No more maneuvers!" at 6,000 feet.
- Breakoff at 5,500' (do so w/o prompting to pass).
- Turn 180° away from coach & track for 5 seconds.
- Coach remains in place and evaluates track.
- Track must be >50' in horizontal distance to pass.
- Wave-off by 4,000 feet (must do so to pass).
- Pull by 3,500 ft. (must do so while stable to pass).

G-3 Freefall Dive Flow

- Perform all spotting procedures without assistance
- Coach observes the spot to ensure safety.
- Review center-floater exit position until successful.
- Check in and initiate count after coach OK.
- Face direction of flight until stable (2-5 seconds).
- Coach moves into position and docks.
- Check altitude, nod, and receive nod from coach.
- Move backward five feet using "start, coast, stop."
- Check altitude and nod if still above 5,500 feet.
- Coach nods, "OK," and increases fall rate.
- Remain in position and match coach's fall rate.
- Check altitude and nod if still above 5,500 feet.
- Coach nods, "OK," and slows fall rate.
- Turn right 90° in place and match coach's fall rate while keeping coach in view over the left shoulder.
- Check altitude every five seconds or after each maneuver, whichever one comes first.
- Responses must become quick & accurate to pass.
- Shake head, "No more maneuvers!" at 6,000 feet.
- Breakoff at 5,500' (do so w/o prompting to pass).
- Turn 180° away from coach & track for 5 seconds.
- Coach remains in place and evaluates track.
- Track must be >50' in horizontal distance to pass.
- Wave-off by 4,000 feet (must do so to pass).
- Pull by 3,500 ft. (must do so while stable to pass).

G-4 Freefall Dive Flow

- Perform all spotting procedures without assistance
- Coach observes the spot to ensure safety.
- Review rear-floater exit position until successful.
- Check in and initiate count after coach OK.
- Face direction of flight until stable (2-5 seconds).
- Turn 90° and coach moves into position and docks
- Check altitude, nod, and receive nod from coach.
- Back up ten feet and coach goes down five feet.
- Check altitude, nod, and receive nod from coach.
- Match coach's fall rate until level and then dock.
- Check altitude, nod, and receive nod from coach.
- Back up ten feet and coach goes up five feet.
- Check altitude, nod, and receive nod from coach.
- Match coach's fall rate until level and then dock.
- Check altitude, nod, and receive nod from coach.
- Shake head, "No more maneuvers!" at 6,000 feet.
- Breakoff at 5,500' (do so w/o prompting to pass).
- Turn 180° away from coach & track for 5 seconds.
- Track must be >50' in horizontal distance to pass.
- Coach remains in place and evaluates track.
- Wave-off by 4,000 feet (must do so to pass).
- Pull by 3,500 ft. (must do so while stable to pass).

Category G Canopy Dive Flow

(Same dive flow for all four Category G jumps.)

- Check altitude, air traffic, & position over ground.
- Correct any common canopy problems.
- Release brakes, conduct a canopy controllability check, and move to the holding area.
- Check altitude, air traffic, & position over ground.
- Make a smooth, deep, sharp, balanced 90° R turn.
- Smoothly, but quickly & aggressively, reverse the toggle position and make a balanced 180° L turn.
- Check altitude, air traffic, & position over ground.
- Repeat to no lower than 2,500', in case of twists.
- Follow planned pattern over landing area or alternate. Coach measures the student's landing distance from a planned target.

G-2 Freefall Dive Flow

- Same dive flow as G-1, except with docks added.

