

## **Kansas State University Parachute Club**

**Jump number: ~16 (Category G)**  
**Maneuver: 45 sec delay**  
**Altitude: 10,000ft**  
**Price: \$34 (+Packer fee if needed)**

Objectives: forward and backward movement, start and stop, docking, maximum-performance canopy turns, weather for skydivers

Freefall skills in Category G address group skydiving maneuvers. In this jump you will dock with your jump master. This means you will have to drive to your instructor and take grips.

You will exit in a bomb out, unlinked position and gain stability. Once you do, your coach will move in a dock on you. Following the successful dock, you will break and your instructor will back up 10 feet. You will drive forward and dock on the instructor. Dock using a level approach. Once docked, arch across the shoulders to maintain the fall rate (elbows up) and stay level with your coach. Extend both legs to counter any tension created in the formation when holding grips. Maintain altitude awareness. If altitude permits you will do it again. At 5,500ft, you will turn and track away. At 4,500 you will begin your wave and pull sequence. Pull by 4,000 ft.

In order to drive forward, extend your legs slightly, and retract you hands. This is similar to the track on your last dive, but not as extreme. Practice on the vertical trainer.

Important to remember when docking is not to reach for the grip. You must first fly to your position and then take the grip.

### **Docking safety**

- a. When driving toward your instructor, do so slowly. A mid air collision can be very dangerous**
- b. If you are coming in too fast, put your hands out in front of you and put your feet on your butt.**

### **Canopy Control –**

Performance turn entry and exit with balance. IT is time to really start learning what a canopy will do when you push it. Enter a turn only as quickly as the canopy can maintain balance (center of lift over the center of load) during the turn. Surging, lurching, or line twist indicate a turn entered too quickly. A canopy is more susceptible to collapse from turbulence during entry and exit from a turn. The canopy dives sharply after a maximum-performance turn.

### Reverse turns

You must know the maximum safe rate of turn entry for each canopy you jump. Practicing reverse turns helps you determine the maximum safe toggle turn rate before inducing a line twist. Make a smooth but deep turn at least 90-degrees to the right, then reverse toggle positions smoothly but quickly for a 180-degree turn to the left (four sets recommended to complete Category G).

A line twist at pattern altitudes may be unrecoverable in time for a safe landing, particularly with a higher wing loading, so you should complete all maximum-performance turns above the 2,500-foot decide-and-act altitude.

### **Equipment**

1. Detailed identification and inspection of high-wear items requiring rigger maintenance

## Category G- Jump 16

a. pilot chute and deployment handle

Look for broken stitching around the apex and the seam where the pilot chute canopy fabric and mesh meet. Check for security at the bridle attachment point. The fabric and mesh should be in good condition; both eventually wear out.

b. deployment bag

Look for distortion in the grommets, especially at the bridle, and fabric damage around their edges. Check the loops that hold the line stow bands. If velcro is used, replace it as necessary.

c. closing pin

Check that the loop holding the closing pin to the bridle is secure and not being cut by the eye of the pin. Check for nicks or corrosion on the pin and replace it if any appear.

d. pilot chute attachment

Look for wear where the bridle attaches to the canopy. Look for broken stitching on the canopy itself where it is reinforced for the bridle attachment loop or ring.

e. likely areas of damage on the top center skin, end cells, and stabilizers

Check for small holes on the top skin from where the bridle attachment stop ring has caught fabric in the bag's top grommet (avoidable with good packing technique). Look for wear on the top skin and end cells caused by contact with sharp objects or stickers. Look for wear in and around the reinforcements in the stabilizers that contain the slider stops. Look for broken or missing stitching along the seams.

f. slider

Inspect for distortion in the slider grommets and wear around their inside edges. Sliders are important, high stress components and should be maintained to the highest standard.

g. lines

Look for wear anywhere along the lines, but especially where the slider grommets contact metal connector links. 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. Lines sometimes shrink unevenly over time. All lines eventually require replacement; refer to the manufacturer's recommendations.

h. slider bumpers (metal connector links)

Slider bumpers protect the slider grommets and lines from damage by taking it themselves; most require periodic replacement. Slider bumpers need to be tight on the link or secured to prevent them from sliding up the lines and stopping the slider.

i. brake system

When velcro is used, placing the toggles on the risers immediately after landing prevents velcro damage and tangles. Velcro needs to be replaced when worn. Velcro and general use wears the lower brake lines, which a rigger can easily replace. Examine the brake lock eye for damage and wear. Look at the attachment point for the keeper ring, including the attachment ring stitching on the opposite surface of the riser. Inspect tuck-tab toggle keepers for security.

j. riser covers

Replace any retaining velcro when it loses tackiness. Replace distorted tuck flaps when they become ineffective (happens with use).

j. main container closing grommets

Inspect for distortion and fabric damage around the edges. Feel for severe distortion or breakage of the plastic stiffener inside the fabric where the grommet is set.

k. main and reserve pin covers

Replace velcro when it fails to stay firmly attached. Replace plastic stiffeners when distortion from use renders them ineffective.

You will need to pack with out assistance to complete this category.

### **Aircraft and Spotting**

*Note: A pilot or instructor should teach this section.*

Refer to the information on weather in Section 5.5 of the SIM and discuss:

weather conditions hazardous to skydivers, practical methods to observe weather and obtain forecasts

Select the spot and guide the pilot to the correct position without assistance in routine weather conditions. This is a requirement for the category.