

**AO-VIII****PERFORMANCE MANEUVERS****OBJECTIVE**

To determine that the applicant exhibits commercial pilot knowledge of the elements of operation of performance maneuvers:

**TASKS**

- A. Ascents
- B. Altitude control
- C. Descents
- D. Rapid ascent & descent
- E. Contour flying
- F. High altitude flight
- G. Obstacle avoidance
- H. Tethering
- I. Winter flying
- J. Mountain flying

**EQUIPMENT**

- Balloon flying handbook
- Balloon flight manual
- FAR/AIM

**INSTRUCTOR  
ACTIONS**

- Discuss objectives
- Review material
- Conclusion

**STUDENT  
ACTIONS**

- Participate in discussion
- Take notes

**COMPLETION  
STANDARDS**

- Participate in discussion
- Take notes
- Complete all tasks in the field

## AO-VIII

## PERFORMANCE MANEUVERS

F. HIGH ALTITUDE  
FLIGHT**91.211 Supplemental oxygen.**

(a) *General.* No person may operate a civil aircraft of U.S. registry -

- (1) At cabin pressure altitudes above 12,500 feet (MSL) up to and including 14,000 feet (MSL) unless the required minimum flight crew is provided with and uses supplemental oxygen for that part of the flight at those altitudes that is of more than 30 minutes duration;
- (2) At cabin pressure altitudes above 14,000 feet (MSL) unless the required minimum flight crew is provided with and uses supplemental oxygen during the entire flight time at those altitudes; and
- (3) At cabin pressure altitudes above 15,000 feet (MSL) unless each occupant of the aircraft is provided with supplemental oxygen.

## TYPES OF SUPPLEMENTAL OXYGEN

G. OBSTACLE  
AVOIDANCE

## AO-VIII

## PERFORMANCE MANEUVERS

## H. TETHERING

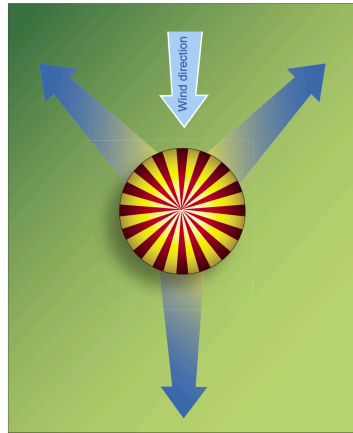


Figure 7-11 Layout schematic for a balloon tether.

- Note and adjust for weather changes. Weather places great unnatural stresses on tethered balloons. Be prepared to suspend or cancel a tether at any moment due to changing weather. Allow extra time for packing lines and other tether equipment when considering whether to shut down.

- Plan for any one line to fail or come untied with no notice. Create a backup plan you can implement immediately to maintain control and safety.

- Watch for spectators and children who want to hang onto tether lines and ride them off the ground. Keep all noncrew away from lines; suddenly tight or rising lines pose risks for all concerned. At NO TIME should any

crew member ever leave the ground (riding or hanging on the basket, holding ropes, etc.).

- Devote one crew member exclusively to organizing passengers in a line far back from the balloon and tether lines. Select groups by number, weight, age, or an appropriate combination of factors.
- Adding weight is necessary on landing and during passenger switches, giving many opportunities for someone's toes or a foot to slip beneath a fully loaded basket. Keep everyone similarly clear of lines running to the basket or lower envelope.
- Inspect lines frequently to ensure they are attached securely at both ends, particularly under heavy loads or in stronger wind conditions.

## I. WINTER FLYING

J. MOUNTAIN  
FLYING