

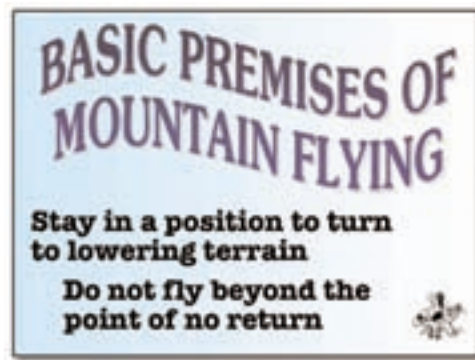


Section 2 – BASIC PREMISES OF MOUNTAIN FLYING

BASIC PREMISES

The basic premise of mountain flying is:
*Always remain in a position where you can
turn the airplane toward lowering terrain.*

This encompasses the idea that you will not fly in an area where there is not room to turn around, for example, in a narrow canyon, or while flying toward upslope terrain.



This basic premise can be expanded to include another basic truth. *Do not fly beyond the point-of-no-return*. While this rule is a part of the basic premise, it is often advantageous to break it out as a separate rule to insure understanding. If you adhere to the basic premise that you will remain in a position to turn to lower terrain, you are already applying the principle that you will not fly beyond the point-of-no-return.

Often when flying upslope terrain the ground rises faster than the airplane's ability to climb. Continued flight will result in an accident.

TURN-AROUND POINT

The *point-of-no-return* is determined as the point on the ground of rising terrain where the terrain out climbs the aircraft.

More important than the point-of-no-return is the *turn-around point*. This is the position where, if the throttle is reduced to idle, the aircraft can be turned around during the glide without impacting the terrain.

The turn-around point occurs when the airplane is about 500-feet AGL while proceeding toward an area of rising terrain.

BOX CANYON TURN - TURN AROUND AND GAIN ADDITIONAL ALTITUDE BEFORE PROCEEDING BEYOND THE TURN-AROUND POINT. MAKE ALL TURNS AWAY FROM THE MOUNTAIN

Do not continue flight beyond this turn-around point. Turn around and gain additional altitude before resuming the flight. When approaching the turn-around point, make all turns away from the mountain.

If the wind is blowing sufficiently to provide mechanical lift, or if convection is present, it

may be advantageous to make a figure-8 pattern along the side of the mountain to take advantage of the lift in gaining additional altitude.

When you need to turn around, make the turn away from the mountain. Continue the turn until you approach the side of the mountain at a 45-degree angle while flying in the opposite direction. Move back in close to the mountain to take advantage of any lift that may be present.

Fly along the side of the mountain gaining lift. To stay in the same general area while maneu-



THE FIGURE-8 PATTERN IS USED TO GAIN ALTITUDE WITH THE ASSISTANCE OF OROGRAPHIC LIFT.

vering, fly a distance of about 1/2 mile then turn away from the mountain. Continue the turn until you are in a position to approach the side of the mountain at a 45-degree angle. Proceed back to the mountainside to continue the climb. When sufficient altitude has been gained to avoid the turn-around point, continue the flight in the original direction.

BEYOND THE POINT-OF-NO-RETURN

What may happen if the airplane is flown beyond the turn-around point? There are two options ... but unfortunately they both result in an accident. If given the choice, the first is the better alternative.

- You can land straight ahead into whatever terrain exists. This is difficult to do. Your self-preservation instinct will cause you to pull back on the control wheel to avoid the rapidly rising terrain. This may lead to an inadvertent stall.

A stall is something you want to avoid when operating close to the ground. The human body is able to withstand something like 40 Gs (gravity units) of lateral (horizontal) force, but can toler-