Thermal Camp

2015

Safety in Mountain Flying

Ridge Flying

We tend to associate “Ridge” flying with the orographic effect of wind being lifted upward by a mountain or ridge.

But sometimes, with just a slight amount of wind, we will feel valley thermals being pushed against the ridge face an then experience combined orographic and thermal lifting.

With no wind, thermal lift may be generating at the base of the mountain and following the gullies upward.

There are multiple reasons to “Fly the Ridge”

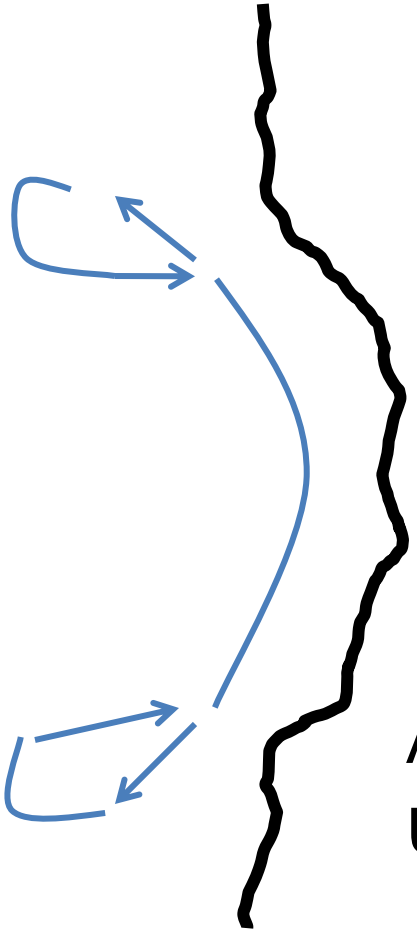
Ridge Flying

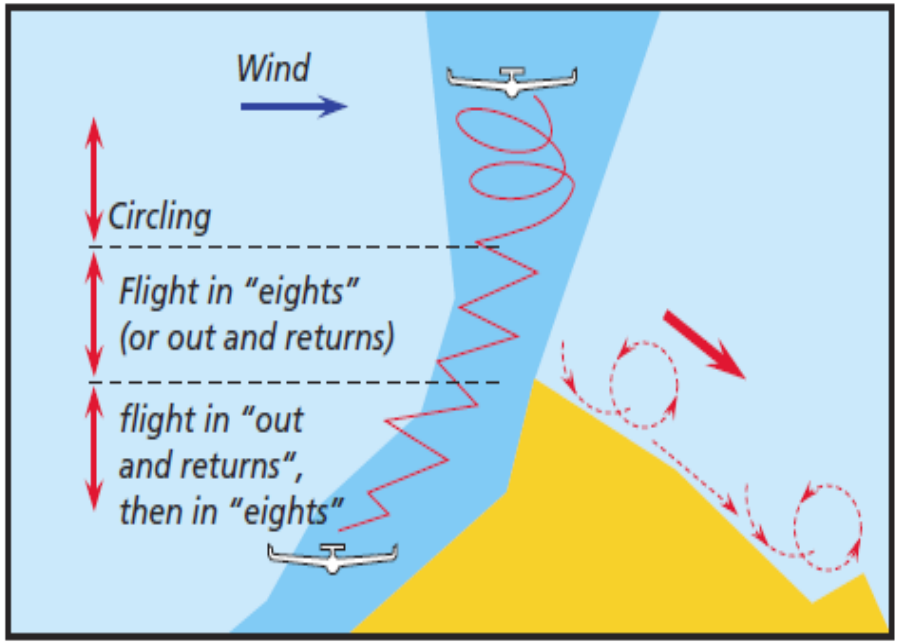
The harder the wind is blowing … the more important these precautions !!

Precautions

- Approach at shallow angles (30-45 degrees)
- Maintain extra speed (Vs x 1.45; Best L/D)
- Maintain visual vigilance – eyes outside
- For turning, use “Out & Return” or “Figure 8” maneuvers
- “Circling” below the ridgeline is discouraged
- Trust your instincts on proximity
- Always be able to “BAIL”

Precautions

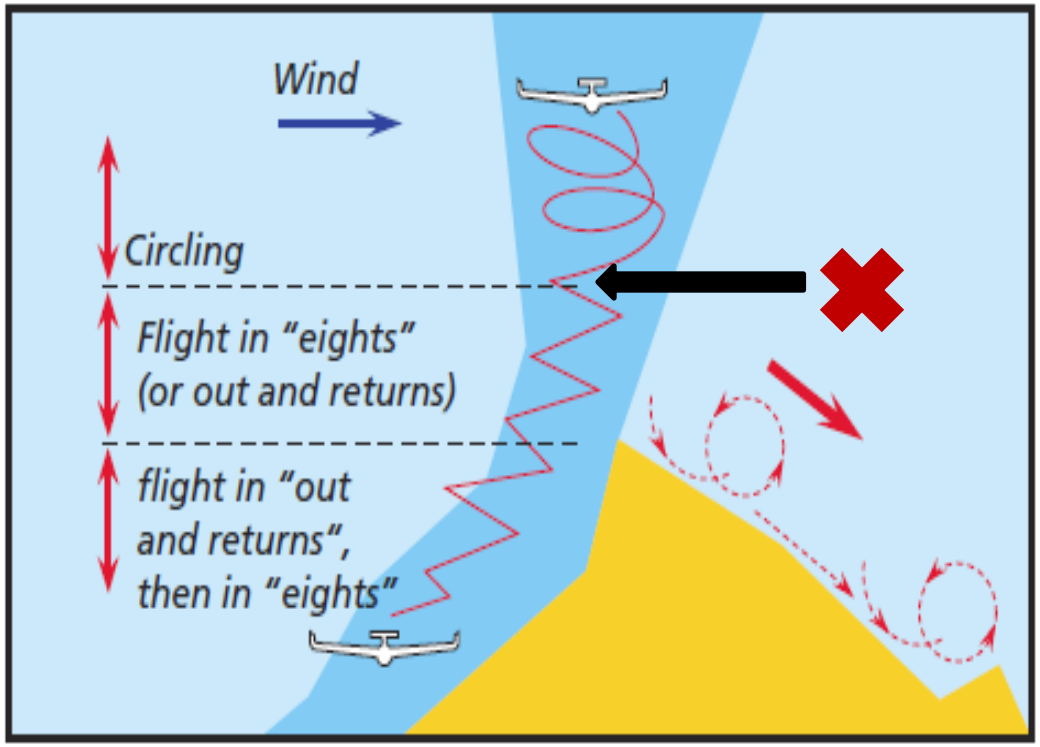




Always turn away from the mountain.

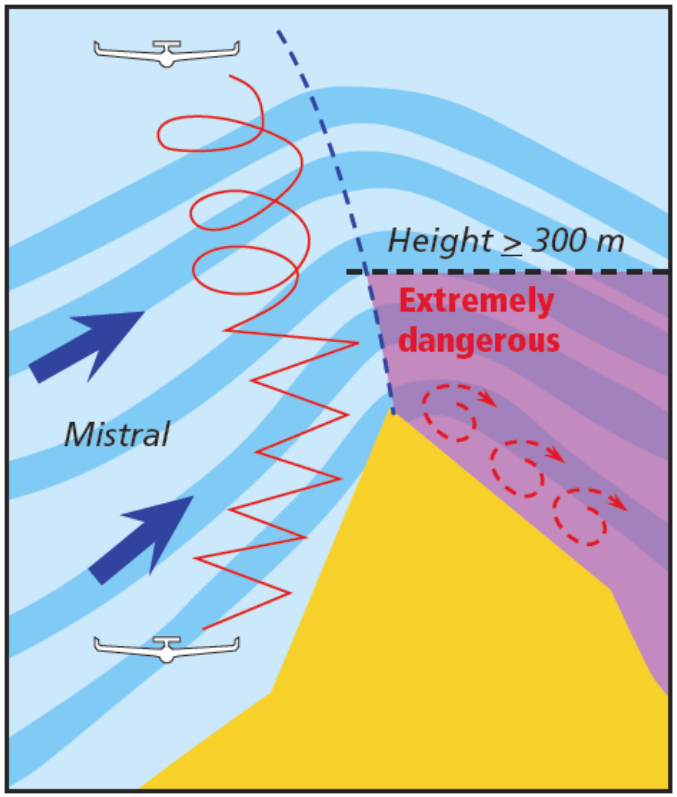
Use O&R or Figure 8 maneuvers to turn.

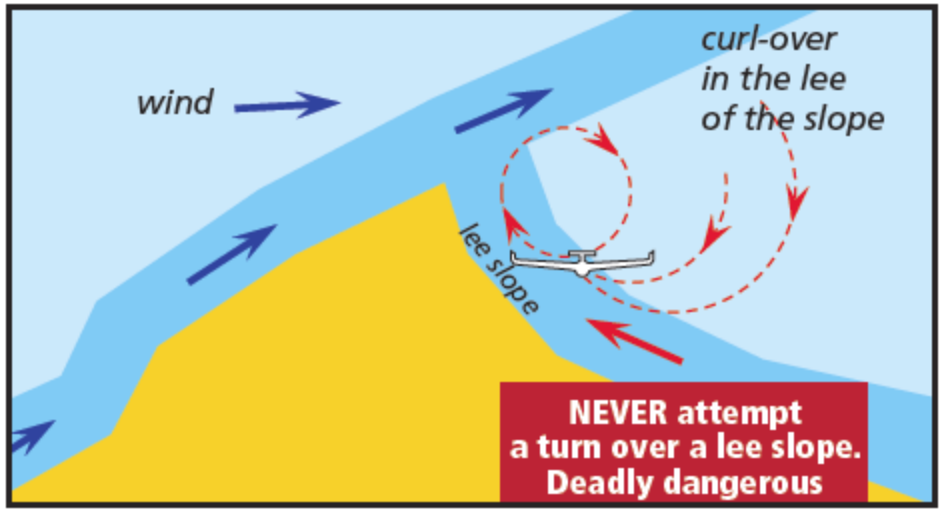
Precautions



Don't drift downwind of the crest.

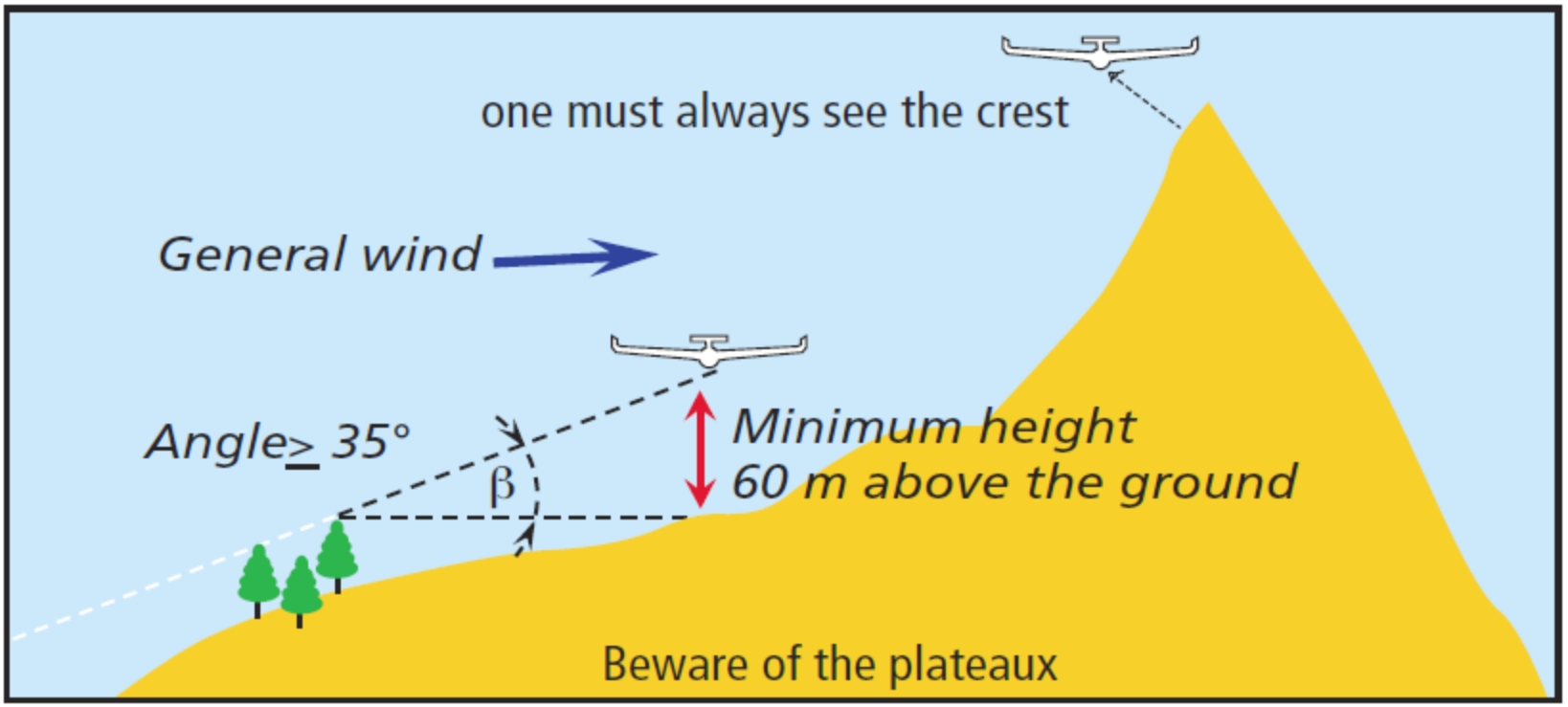
Precautions





As the winds get stronger, the Lee Side gets more dangerous. Rotor, turbulence, and downdraft may await you.

Precautions



Substitute Horizon

The presence of a mountain prevents you from seeing the true horizon.

The absence of a horizon can lead to “fixation” on improper visual references (mountain features, wing tips, vicinity of the wall). This can lead to uncoordinated flight or improper pitch/bank attitudes.

Need to generate a “substitute horizon” which is a mental image of where the horizon would be if you could see it.
Done by using visual references that exist in other parts of your 360º view and then extrapolating the image.

Oxygen

Remember the rules?

- > 14,000’; Required
- > 12,500’ + 30 minutes; Required

These are the legal requirements.
Many people turn on their oxygen at 10,000’ to be prudent.

These altitudes are not hard to achieve at Air Sailing!

Collision Avoidance

Right of Way Rule

Overtaking – Pass on Right

Converging – Pass on Right

Ridge Flying – Head On

Mountain on Left: Bank Right and/or Climb

Mountain on Right: Dive (DO NOT bank left; DO NOT Climb)

Do Not Stay in the Blind Spot of another glider

Eyes outside 95% of time

Clear your turns

Take Offs and Landings

Re-emphasize Checklists

- *Assembly*
- *Positive Control*
- *Pre-Flight*
- *Pre-Take Off (Includes belts on and tight!)*
- *Pre-Landing*

ASG's "Soaring Safety Subjects" has an article on Checklists

The Pre-Landing checklist should be memorized and completed prior to reaching the IP

Take Offs and Landings

While on Tow

- *Stay behind the tow plane*
- *Seat belt tight*
- *Remember the 2 second rule*
- *Expect a rough tow*
- *Planned release altitude?*
- *Remember the 5 second rule*

Take Offs and Landings

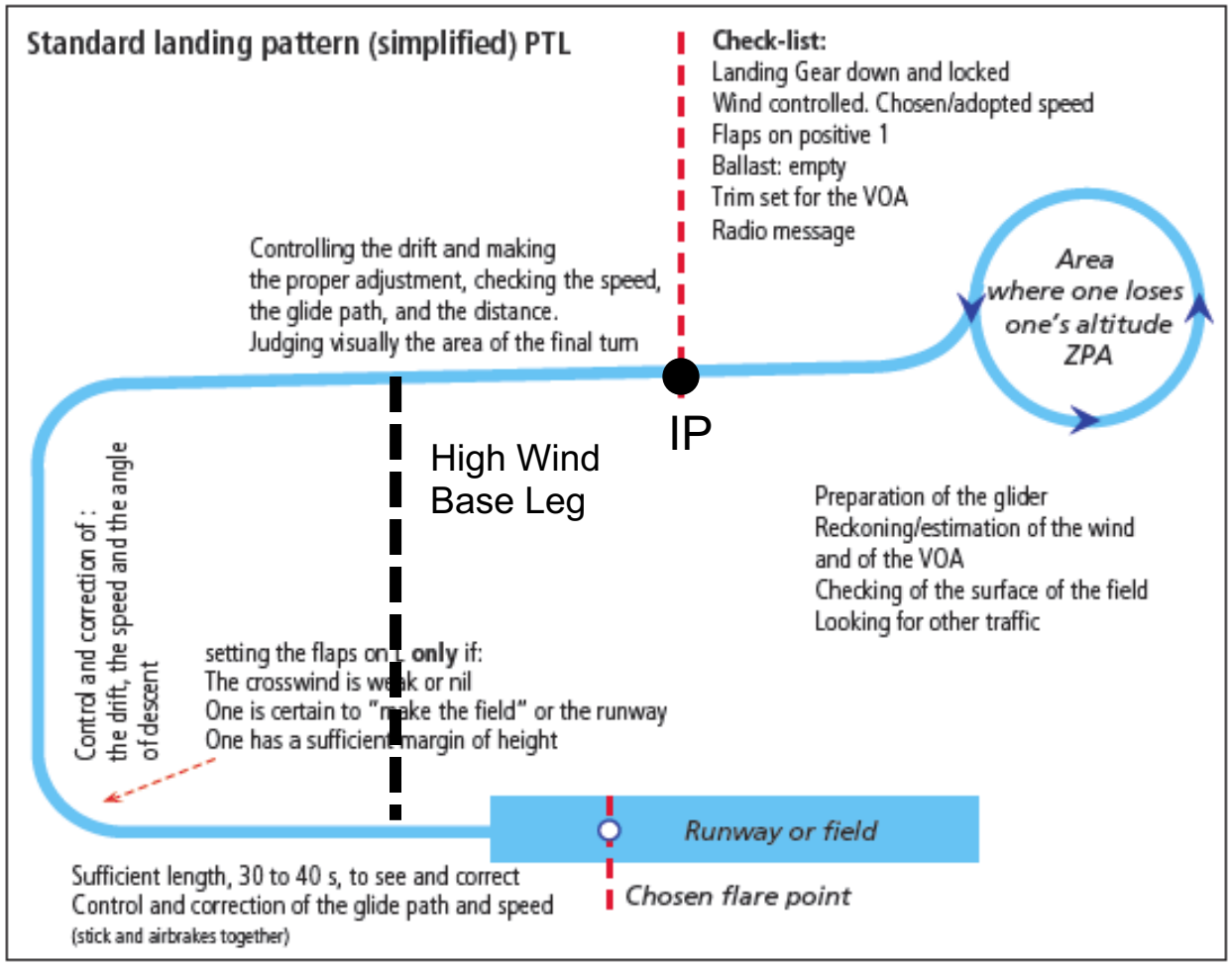
Winds stronger, gusts stronger, turbulence more pronounced.

Remember your X-Wind techniques

Landings in Strong Winds

- *Vappr = 1.5 Vs + ½ Wind*
- *Maintain Vappr until the flare*
- *Expect high GS on downwind*
- *Expect low GS and steeper angle on final*
- *Don't float; spoilers out for landing*
- *Stay planted; spoiler full & stick back*

Landing Patterns



Safety in Mountain Flying

THE END