

Kenmore Air Recurrent Training

Wind Shear: Recognition and Avoidance

What is Wind Shear?

Wind shear is a significant change in wind speed and/or direction over a short distance

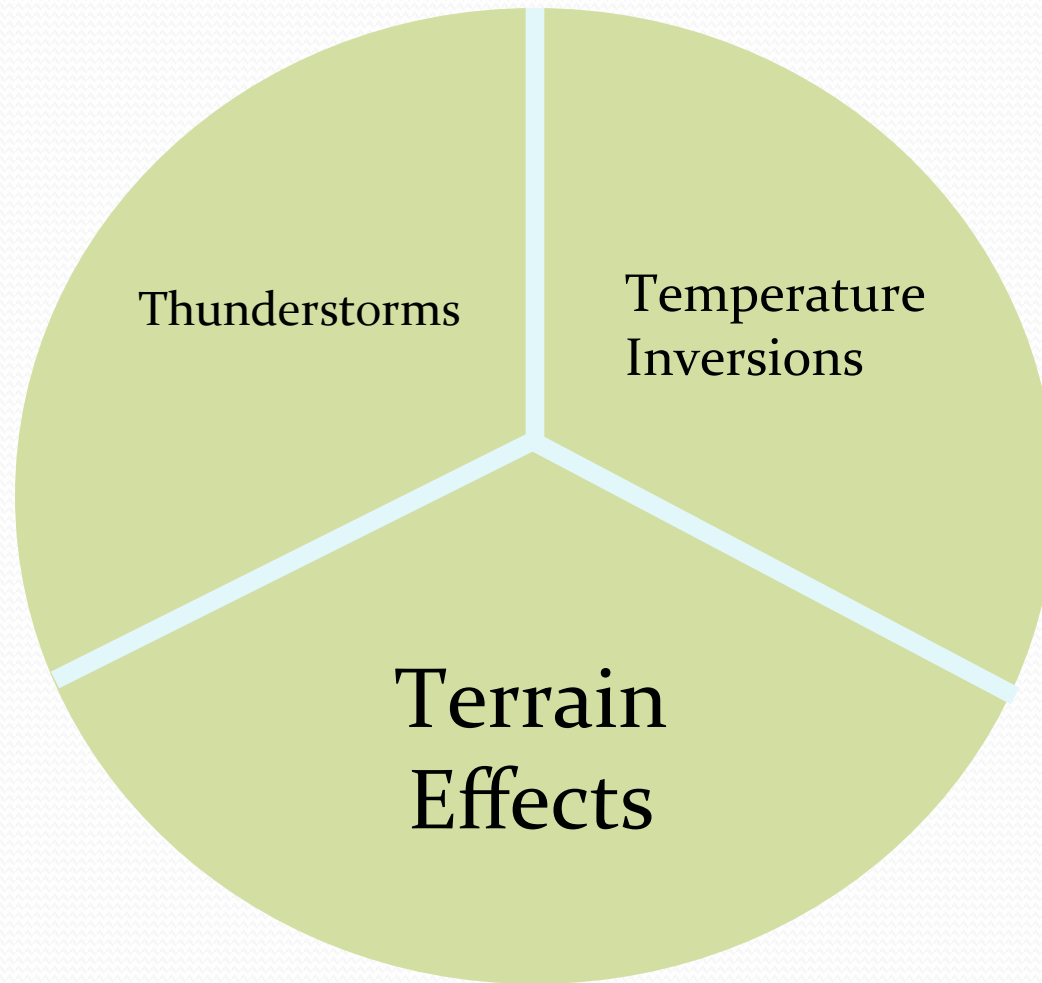
What does wind shear look like?

Terrain-induced wind shear may be indicated by dark, rapidly-advancing areas on the water, or by...

What does wind shear look like?

...suspiciously calm areas of water when area surface winds exceed 15 knots.

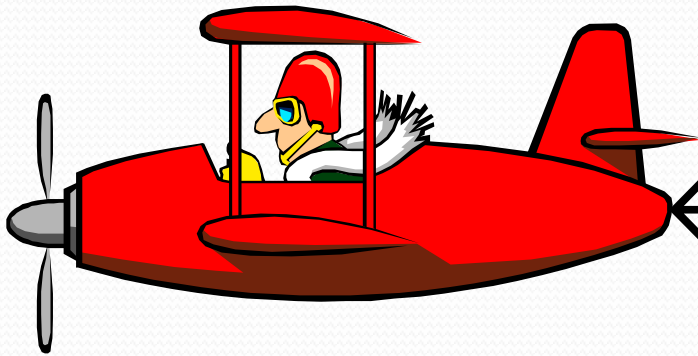
Causes of Wind Shear



Terrain-induced wind shear is the leading cause of floatplane accidents in the Pacific Northwest/ Western Canada

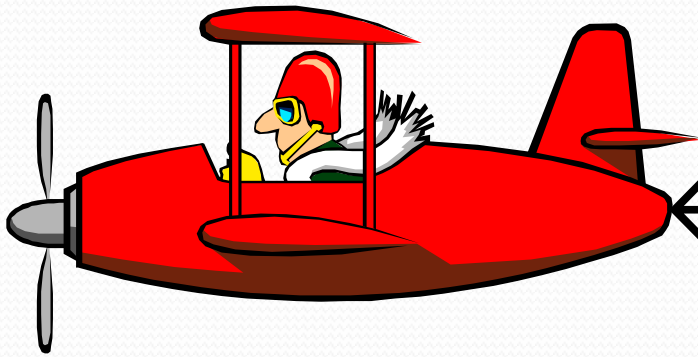


How does wind shear create floatplane accidents?



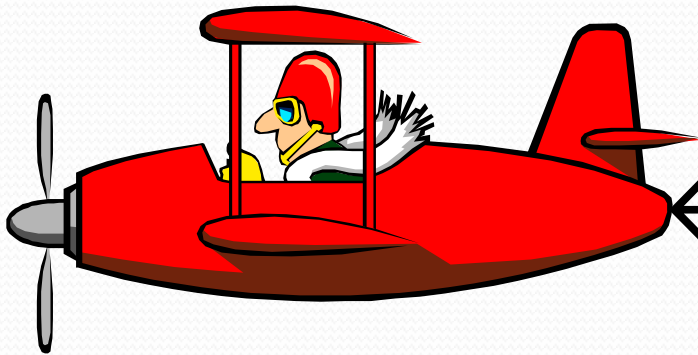
Horizontal wind gusts exceed roll rate of aircraft

How does wind shear create floatplane accidents?



Downdrafts exceed aircraft's climb performance

How does wind shear create floatplane accidents?



Abrupt loss of airspeed causes aircraft to stall

Common Wind Shear Takeoff Accidents

Climbout
into terrain

The Down
Wind Turn

Emerging
from
Protection at
Liftoff

The Early
Liftoff

Common Wind Shear Landing Accidents

Aircraft stalls in
low altitude
turn

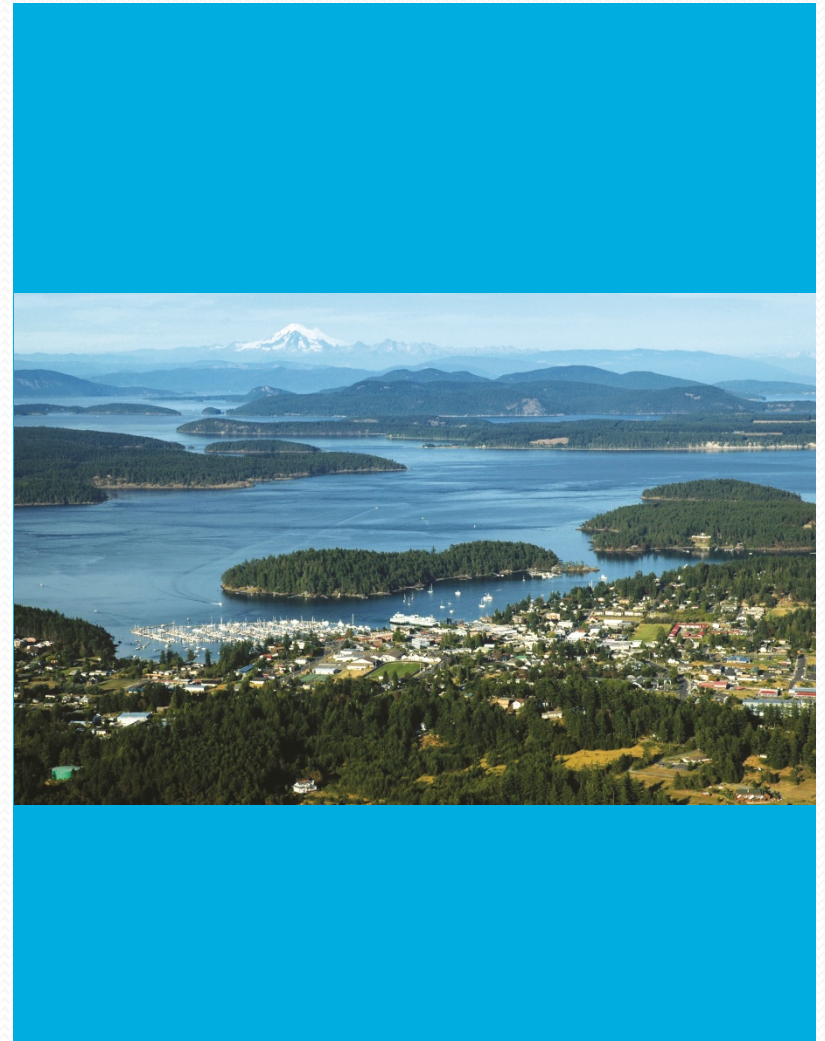
Aircraft
Unable to
Land Before
Striking
Terrain

Aircraft
Forced onto
Water

Strategies for Avoiding Wind Shear Accidents:

Strategy #1:

Visualize
the “big
picture”



Strategies for Avoiding Wind Shear Accidents:



Strategy #2:
Overfly to
determine
wind
pattern

Strategies for Avoiding Wind Shear Accidents:

Strategy #3:
Don't trade
poor water
for worse
air.



Strategies for Avoiding Wind Shear Accidents:



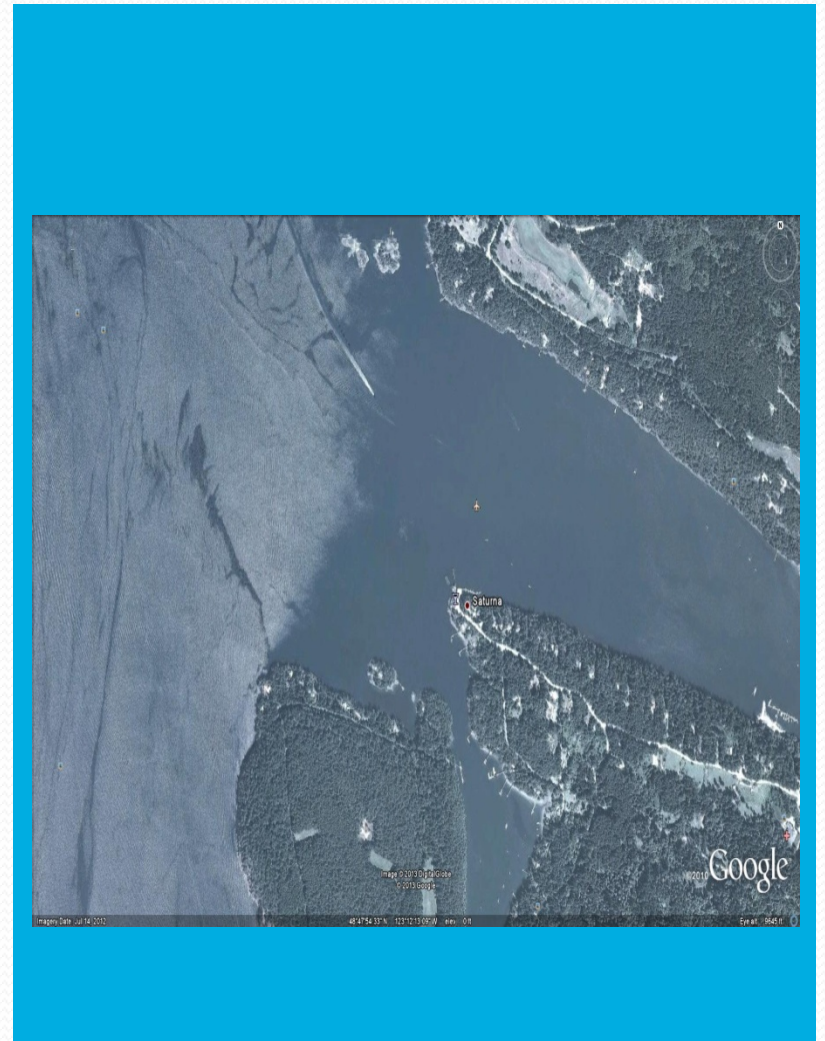
Strategy #4:

**Avoid low
altitude
turns.**

Strategies for Avoiding Wind Shear Accidents:

Strategy #5:

Use
landform
protection
cautiously.



Strategies for Avoiding Wind Shear Accidents:



Strategy #6:
**Always
preserve a
go-around
option.**

Strategies for Avoiding Wind Shear Accidents:

Strategy #7:
**Know when
to quit.** (Wind
SOPs can help,
but don't cover all
situations.)

