

ComancheZOOM Thursday, December 12, 2024

Subject: Frost on the wings

Are you safe? Are you legal? What can you do about it?

This week, as we do every year, we focused on winter weather planning, flying techniques, and the go/no-go decisions often required. What are the effects of frost on aircraft surfaces? Pilots joined us for this important topic, bringing their experiences to the discussion.

Malcolm Dickinson led this discussion. Malcolm is a CFII/MEI/ATP who has owned and flown a heavily modded Comanche 260B in New England for over 20 years, instructs in all weather, and flies for a Part 121 carrier,

As it is, about one-quarter of all icing accidents in airplanes are caused by the disruptive effects of frost (or snow) that should have been removed before takeoff. Unlike in-flight icing, frost doesn't change the shape of an airfoil, but its granular surface disrupts the smooth flow of air assumed by both aircraft designers and certification standards. Remember your introduction to aviation meteorology? It included the FAA's admonition that: "Roughness, similar to medium sandpaper, on the wing's leading edge and upper surface can reduce maximum lift by as much as 30 percent and increase drag by 40 percent."

This topic started with questions:

- What should we as Comanche operators do when frost appears on our airframes?
- What characteristics about the Comanche wing may make frost more or less an issue for us?
- You have a frost covered airplane. Can you fly it? Is it safe?

It turns out the FAA regs have changed. A suddenly frosted Comanche in MA required (a) the frost to be noticed and (b) a go/no-go decision made. Investigation found that 10 years ago the FAA changed the rules on Frost. As of that decision frost is now an absolute no-go.

This Zoom was eligible for FAA WINGS credit through the Bradley CT FSDO. Pilots registered at Wings.NortheastComanche.Org. Once joining the Zoom, they must be sure that their screen name matches their registered name.

To see/hear the recordings click on a link below:

- <http://meetings.northeastcomanche.org/zoom/2024-12-12/video.mp4>
- <http://meetings.northeastcomanche.org/zoom/2024-12-12/audio.m4a>

To read the Chat text click on this link:

- <http://meetings.northeastcomanche.org/zoom/2024-12-12/chat.txt>

Pete Morse for the ComancheZOOM team