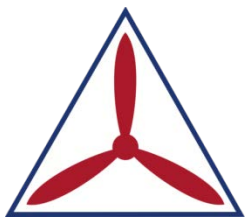


Civil Air Patrol

Propeller Damage Prevention



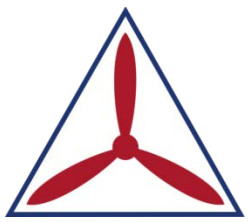
CITIZENS SERVING COMMUNITIES



Propeller Damage Prevention

Overview

- Prop Strike Definition
- Preflight Inspection
- Surface Conditions
- Soft Taxi Ways & Runways
- Airfield Lighting
- Apron Familiarity
- Post Flight Inspection

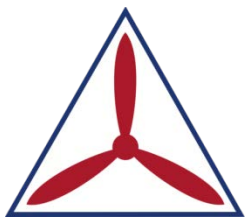


Propeller Damage Prevention

Definition

- ➔ A “**prop strike**” is when the propeller of an aircraft hits anything during taxi, take off, or landing.
- ➔ May cause injury and is always expensive!



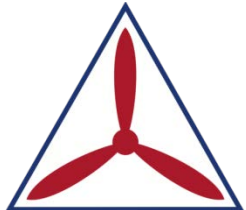


Propeller Damage Prevention

Preflight Inspection of Propeller

- ➔ View overall condition – paint, marks, rust, etc.
- ➔ Inspect Propeller tips – marks, grass, etc.
- ➔ Look for nicks & stress fractures.
- ➔ Check for oil leaks around the prop hub.
- ➔ Nose cone secure? – All screws installed.
- ➔ Notify CAP personnel if undocumented damage is found; prior to flight.

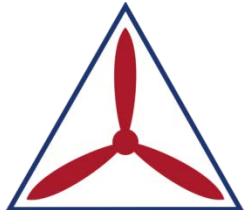




Propeller Damage Prevention

Surface Conditions

- Departing the prepared surface – Avoid it!
- A major contributor to prop strikes.
- Be aware and prepared!
- Standing water – Hydroplane hazard.
- Ice – May slide off prepared surface.
- High winds – Directional control issue.

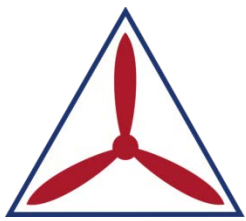


Propeller Damage Prevention

Soft Taxiways & Soft Runways

- ➔ Operate on dry soft surfaces when possible.
- ➔ Potential for wheels to sink down during landing & taxi when the surface is wet, resulting in bounces causing propeller and/or tail strikes.



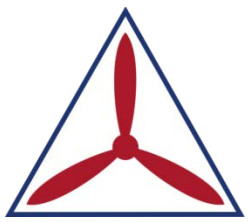


Propeller Damage Prevention

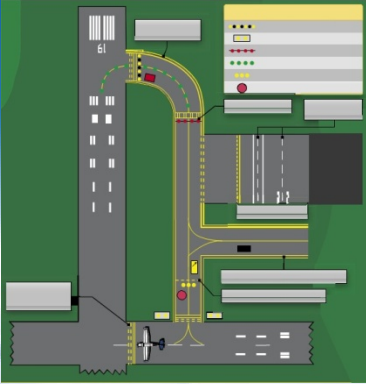
Soft Taxiways & Soft Runways (continued)

- ➔ Avoid FOD (Foreign Object Damage)!
- ➔ FOD hazards can damage the propeller.
 - ➔ Vegetation, pebbles, sticks, trash, etc.



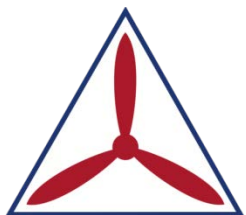


Propeller Damage Prevention



Airfield Lighting

- ✈ Be familiar with taxi & runway lighting; to keep you on the prepared surface at night.
- ✈ Be aware of potential blinding hangar lighting and preserve your night vision.
- ✈ If you can't see where you are going, stop the aircraft!

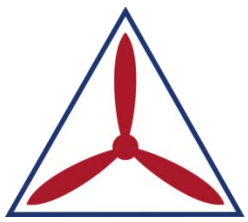


Propeller Damage Prevention

Apron (Ramp) Familiarity

- Know where permanent hazards are.
- Clear the area of FOD & Obstacles.
 - Do this prior to aircraft movement.
- Be familiar with Taxi lines.
- Know where other aircraft typically park.
- Be watchful of temporary obstacles such as chocks, tow bars, tie-down ropes etc.



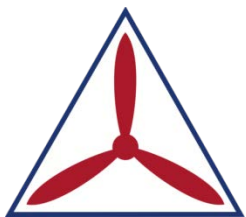


Propeller Damage Prevention

Post-flight Inspection

- ➔ Inspect propeller tips – marks, grass, etc.
- ➔ Look for nicks & stress fractures.
- ➔ Inspect for oil leaks around the prop hub.

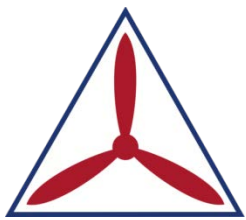




Propeller Damage Prevention

Summary

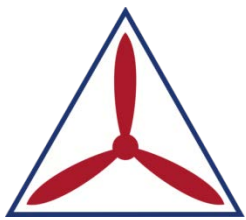
- Prop Strike Definition
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- Post Flight Inspection



Propeller Damage Prevention

Questions

Please be sure to utilize the local expertise in your chain of command to help with aviation related questions; your Unit, Wing, and Region Stan/Eval Officers (DOV) are a wealth of knowledge and are ready to assist.



Propeller Damage Prevention

Acknowledgments

Many thanks to the following for their input into this presentation:

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And, all of those who supported this effort to enhance the safety of flight ops.