

## Safety Corner -- K-21 Canopy Hazard

The rear canopy on the K-21 opens straight up, making for a pretty big and interesting air brake if it opens inflight. If closed and locked you should never encounter this undesirable additional drag. Key words here are closed **AND LOCKED**. It is oh-too-easy though to close the rear canopy and not lock it, either due to a passenger not knowing how to fully engage the locks or through a more likely scenario where a pilot forgets to lock the rear canopy when going on a solo flight with an unoccupied rear cockpit.

The good news is that the K-21 canopy system is designed to prevent you from locking the front canopy if the rear canopy is not closed and locked. While the design is sound, the plastic interlock that does the magic has been known to fail which will allow the front canopy to be closed and locked when the rear canopy is closed but not locked. Not good. This is not a theoretical situation; as John Murray can relate, he just repaired a K-21 from a glider club in the region where an unlocked rear canopy came up during flight. The total damage was about \$10,000. (Not a typo.) In this incident the interlocks were broken or missing which enabled the front cockpit pilot to close and lock his canopy with the rear canopy still unlocked. The results were predictable, embarrassing, and expensive.

How can we prevent this from happening at CCSC? Simple. Before flying a K-21, leave the rear canopy open and then lower and try to lock the front canopy. (Don't use excessive force, otherwise you can break perfectly good interlocks.) ***If you can lock the front canopy with the rear canopy open, the interlocks are broken (or missing) and the aircraft must be grounded until they can be repaired.***

**Crew chiefs:** Ensure your crews perform this check prior to the first flight of the day.

**Pilots:** As part of your preflight, check whether you can lock the front canopy with the rear canopy open.

See the pictures below for how the interlocks work:



