

Elmendorf Aero Club

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PIF 10 – 09

Propeller Safety

12 August 2010

PIF 10 – 09 is a reminder of Propeller Safety and how dangerous the propeller can become without assuring magneto security. This PIF also reviews AFMAN 34-232 3.17.13.7 concerning hand propping of aircraft.

This PIF is important to review because the propeller is a very dangerous item, area, and zone. Item, because if the magnetos are hot, injury or damage could occur. Area, because during a run up, pre-flight, or maintenance run check if the propeller strikes something, to include rocks and other ground debris, again injury or damage could result. Zone, due to the fact that anything entering into the propeller rotation or circle of safety zones could once again result in serious injury or major damage to the aircraft.

Propeller and propeller zone safety awareness is paramount.

If any questions arise concerning the regulations and what the member is allowed to do with the aircraft, please contact the Elmendorf Aero Club Manager, Chief Flight Instructor, or Safety Officer for clarification.

Flight Safety

“Make It First, , , Make It Last”

**The information contained in this PIF is permanent
never to expire**



SAFETYGRAM

Aug 2010

This month we are going to discuss the aircraft fan. You know that spinning thing in the front of the airplane? Why do I call the propeller a fan? Well, as soon as it stops, watch the pilot start sweating.

I know, old joke, but the aircraft propeller is a serious piece of equipment that demands our attention at all times. We recently had a couple incidents with Aero Club members in private aircraft that highlight the risk of propeller operations. I'll summarize here, and am using these as examples.

The first incident involved a highly experienced pilot preparing his airplane for a post maintenance engine ground run following its annual inspection. The pilot pulled the propeller through to ensure the engine did not suffer hydraulic lock during the engine start sequence when suddenly, a cylinder fired. This caused the propeller to spin and strike the pilot causing serious injuries. While securing the aircraft after the accident, the magneto ignition switch was found in the "both" (1 and 2 magneto ignition ready to fire) position. It is suspected that the magneto ignition switch was left in the "both" position after the magneto-to-engine timing was adjusted and not turned back to the "off" (grounded) position. It is possible the pilot did not check to ensure the magneto ignition switch was in the "off" position during the preparation to start sequence because during the course of the "normal" engine run the magnetos would not have been selected "on" during this step of the engine start procedure.

The second incident occurred when the pilot was hand propping his aircraft. The aircraft started and began "taxiing" on its own and struck a parked vehicle. The pilot sustained an injury to one foot. The aircraft sustained significant damage and is most likely destroyed. The vehicle made out far better than the airplane.

The first incident occurred not because the individual was trying to hand-prop the aircraft, but rather just because he was moving the prop. Do you ever do that before or after a flight? Nothing wrong with doing so, but you may want to ensure the magnetos are off. And always position yourself as if the prop will spin on its own, just in case you need to move quickly.

The second incident is why we don't allow hand propping of Aero Club aircraft. (See AFMAN 34-232 paragraph 3.17.13.7.) What if you have an aircraft that has an electric starter and it or the battery fails. Is the airplane legally airworthy? Does the AFM/POH allow you to hand-prop it? Ask yourselves these types of questions before the FAA or NTSB inspector asks them to you.

I hope both individuals recover completely, and of course the safety of people is always my primary concern. In addition to the personal injuries, these kinds of incidents don't help the 'health' of the Aero Clubs in general. Even though neither of these events occurred with Aero Club assets or on Aero Club missions, the fact is they are reported through leadership and this isn't a way we want Aero Clubs highlighted.

Fly Safe!



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