



Interagency Aviation Accident Prevention Bulletin



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Subject: Aircraft Ready for Flight (Preflight Inspections)

Area of Concern: Flight Safety

Distribution: All Fire and Aviation Operations.

Discussion: Multiple SAFECOMs from 2022 highlight the importance of ensuring an aircraft is ready for flight. While pilots are ultimately responsible for the airworthiness of their aircraft prior to flight (Federal Aviation Regulation, [Part 91.7](#)), effective crew resource management techniques highlight the opportunity for aircrew members, flight managers, and ramp personnel to assist in ensuring that safety of flight is not compromised. Here are a few examples taken from some SAFECOM reports.

22-0227 Aircraft Door Not Secured

During flight, the helicopter pilot's side slider door came open causing a sunshade to fly out. The pilot continued operations until the end of his fuel cycle and returned to the helibase. Upon landing, the helicopter managers noticed that the slider door was completely open. The pilot and mechanic determined that the door was not properly shut when departing the helibase, causing the door to open in flight.

22-0345 Fuel Cap Not Seated

After boarding the aircraft, but before starting the helicopter, two of the passengers noticed fuel seeping from the fuel cap. The pilot was notified and all onboard exited the aircraft. It was determined that the fuel cap was not seated properly.

22-0424 Jack Stand Attached to the Aircraft

The aircraft had begun to taxi on the ramp when the pilot was flagged down and told to hold in place while the ramp manager proceeded to remove a jack stand that was attached to the aircraft. The jack stand was removed, and the flight proceeded without any further incidents.

22-0563 Flight Control Locks Not Removed Prior to Flight

A single Engine Air Tanker (SEAT) radioed base that he was returning to the pits to remove an aileron lock after an aborted takeoff.



22-0588 **Basket Reinstallation**

It was discovered on pre-flight inspection that the right side (tail rotor side) basket had not been attached properly. The front pin was fully inserted, but the bracket on the basket itself was not fully seated on the mount. The inserted pin was holding the bracket on top of the mount. The onsite mechanic speculated the weight in the basket kept it from falling off on the previous days final flight and any turbulence could have knocked the basket loose in flight.

22-0752 **Aircraft Cargo Door Not Secured**

The front nose cargo door was not secured prior to takeoff. The aircrew did not realize the door was unsecure until jump operations began. When the spotter noticed the door flapping after completing a low pass over the jump spot, the spotter notified the pilot who immediately prepared to land at the nearest airport. After landing, the nose cargo door was secured. No damage was found. After a thorough post and preflight the pilot re-engaged with the mission.

Aircraft preflight is always a critical step in aviation. Fortunately, these overlooked and missed items did not result in a mishap, but the potential for damage and injury was present. These are all human factor related issues. There are no warning lights and audio alerts for fuel caps and gust locks. The way to overcome human error in aviation operations is to review countermeasures to ensure we have processes that address complacency that manifests from repeated routine.

T. Allan McArtor, a former Federal Aviation Administration chief, thinks that complacency may be the wrong term. He says, "I'd prefer to use a term like routine professionalism, where you become so good, so familiar with the task, that there is a lack of vigilance." Our pilots are professional and are genuinely concerned. We need leaders, managers, and aircrew to review how we compensate for human errors and put meaningful countermeasures into place. Those countermeasures include:

- Standard Operating Procedures (SOP)
- Flows and Checklists
- Verbalized procedures
- Distraction Management
- Threat and error management (TEM)
- Crew Resource Management (CRM)

These are just some of the ways to guard against human error and overlooking items that might result in a preventable mishap. It is not only important to be aware that highly experience pilots and well-intentioned aircrew can make mistakes, but that we put into place ways to prevent them altogether.

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