

Distractions in the Cockpit

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In the aviation community, distractions in and outside the cockpit have been found to be either a direct or contributing cause of many aircraft accidents. One such accident occurred last year when the glider, while on tow, flew far enough out of position behind the towplane that the towplane pilot lost control of his aircraft and was tragically killed trying to recover. A contributing cause of the accident appears to be a distraction of the pilot in the glider which caused that pilot to lose sight of the towplane and not release in a timely manner. This article is written to raise the soaring community's awareness of the critical and fatal situations that cockpit distractions can cause and the need to concentrate on flying the glider during these critical phases of flight.

The concept of a 'sterile cockpit' during critical phases of flight has been adopted by the aviation community as a method to avoid the distraction risks. Most phases of flight are critical; however some are more critical than others such as takeoff, tow and landing. One way to mitigate distractions on the takeoff is to accomplish tasks such as stowing equipment, accomplishing checklists and briefing your passengers before the start of the takeoff roll. A good passenger briefing includes a comment about the 'sterile cockpit' environment that should exist during the takeoff and tow (i.e. no unnecessary chatter). However, an extra set of eyes looking for traffic can be useful. A sample of the passenger safety briefing can be found at the FAASafety.gov site by searching on 'Passenger Briefing'.

If after the launch commences some unexpected distraction occurs the pilot may be better able to handle the situation. Distractions such as the canopy or divebrakes coming open during takeoff can be eliminated with the use of a before takeoff checklist. The risks associated with a premature tow rope break or release can be reduced with a thorough briefing of what the pilot will do should that event occur at various altitudes. Other non-critical distractions should be ignored by the pilot until a safe altitude is attained and the glider has released from the towplane. Unnecessary tasks such as raising the landing gear or tuning the radio should not be accomplished until after the tow is released. To the extent that is possible, programming your flight computer should always be completed on the ground but certainly not during tow.

A good video of a cockpit distraction during a takeoff can be found at YouTube.com when you type in the search window 'decision making process in a glider emergency'. It's a 5 minute video about the pilot's second flight in a SGS 1-34. After the event the pilot adds his narration about his decision making process during the flight. It is educational and shows how to handle a distraction in a calm and systematic manner. I want to publicly thank the pilot who posted the video in the interest of safety.

Another video can be found by searching for 'glider air brake popping open on tow'. This is a 1 minute flight that ends in a survivable accident. It appears that the glider was damaged and the pilot may have suffered some injuries. In this video the pilot did not realize that the airbrakes had come open during takeoff and could not understand why the towplane was not climbing. This accident could have been avoided with the use of a proper before takeoff checklist. I also want to thank the pilot of this glider who posted this video in the interest of safety to help other pilots avoid this same fate. When the divebrakes come open during takeoff it is usually quite subtle and often is not recognized soon enough to avoid an accident.

Glider pilots must also be vigilant when thermaling with other gliders. We must avoid distractions inside the cockpit such as programming our navigation computers or staring at the instruments and direct our attention outside to avoid an inadvertent collision. We should use such devices such as an audio variometer so that we can 'keep our head on a swivel' outside the cockpit.

The 'sterile cockpit' concept should also be observed during the landing phase of flight. Preparation is the key to avoiding distractions. Before making an approach and landing the pilot should accomplish any necessary cockpit cleanup by stowing navigation charts and other items that they may have been using during the flight. Completing a before landing checklist is an essential step to avoid any last minute distractions such as the landing gear not being extended.

Every landing a pilot makes at their home field should be made with a steep approach angle to a predetermined aiming and rollout spot. This consistent practice will aid the pilot when presented with a landing that may be more demanding, such as accomplishing a landing in a farm field or unfamiliar airport. Allow extra time and altitude to adequately survey the proposed landing area. Flying the home field practiced approach pattern, if possible, will allow the pilot to use their past experiences to help with the decisions that need to be made for this off-airport landing.

Distraction risks both inside and outside the cockpit during critical phases of flight can lead to accidents, some can be fatal. Many of those distractions can be avoided with the use of checklists and other good operating procedures such as a passenger briefing. Other distractions, if not critical, should be handled in a systematic manner so as to avoid further problems that could lead to an incident or accident. Raise your situational awareness and fly safer.