



NTSB

SAFETY ALERT

National Transportation Safety Board



All Secure, All Clear



Be vigilant regarding accountability and security of items

The problem

- Forgotten and unsecured items within an aircraft can lead to accidents or incidents as they move during flight. These items can include tools used on the aircraft before flight; aviation-related items such as GPS units, clipboards, and antennas; nonaviation-related portable electronic devices (PED) such as personal phones and computers; and personal items such as jackets or carry-on items.

Related accidents

The NTSB has investigated numerous accidents involving forgotten or unsecured items, each of which serve as important reminders about the critical need to ensure that items are accounted for and secured before flight. The following accident summaries illustrate some common—and preventable—accident scenarios related to unsecured or forgotten items:

- A portable XM-GPS antenna migrated to the tail section of an Extra EA-300 airplane and jammed the elevator bellcrank, which resulted in an uncontrolled descent into terrain. The pilot and passenger died. (NTSB accident number [WPR12FA155](#))
- During the flight of a Hughes OH6A helicopter, a door opened and an unsecured jacket departed the cabin and collided with the tail rotor. The pilot sustained minor injuries and a second pilot sustained serious injuries when the helicopter landed hard. ([LAX03TA150](#))
- A tool, which the pilot had used just before the accident flight and had not accounted for, interfered with the control stick, causing it to jam. The Czech Aircraft Works Sport Cruiser collided with terrain during takeoff, but the pilot was not injured. ([CHI08LA040](#))
- Before a fast taxi test of a Falcon XP, the pilot did not properly secure a sand bag in the airplane's rear seat. The airplane unexpectedly became airborne, and the sand bag jammed the flight controls, resulting in the airplane's collision with power lines. The pilot was seriously injured. ([CEN13CA302](#))
- The pilot's personal locator beacon became lodged in the bellcrank for the elevator torque tube and jammed the XtremeAir airplane's pitch control, minimizing the

range of available movement. The pilot was able to land the airplane, but it bounced and ran off the runway. The pilot was not injured. ([WPR11CA197](#))

What can pilots do?

- Inspect the airplane for forgotten or misplaced tools before takeoff. Remember that even experienced pilots and aviation maintenance technicians can make mistakes. If you have recently had maintenance performed on your airplane or if you have conducted maintenance yourself, this action is especially important.
- Conduct an inventory of cockpit items before takeoff, including the number of PEDs, GPS units, and antennas on board the aircraft, and ensure that they are secured. This also helps to ensure their availability throughout the flight.
- Account for all flight gear and personal items such as hats and jackets before and after each flight, and ensure that they are secured.
- Incorporate all of these checks into your preflight actions.
- Remind passengers during the preflight briefing of the importance of item security and proper stowage of PEDs and personal items.

Interested in more information?

The reports for the accidents referenced in this safety alert are accessible by NTSB accident number from the NTSB's [Aviation Accident Database & Synopses](#) web page at www.nts.gov/aviationquery/index.aspx. Each accident's public docket is accessible from the NTSB's [Docket Management System](#) web page at <http://dms.nts.gov/pubdms/>.

The FAA Safety Team (FAASafetyTeam) provides access to [online activities, courses, seminars, and webinars](#) as part of the FAA's "WINGS—Pilot Proficiency Program." Maintenance Safety Tip, "[Fly-Away Tools!](#)" emphasizes the importance of tool accountability. This information can be accessed from the FAASafetyTeam website at www.faasafety.gov.

The [Airplane Flying Handbook](#) (FAA-H-8083-3A), which can be accessed from the FAA's website at www.faa.gov, contains information specific to cockpit management in chapter 2. Special Airworthiness Information Bulletin (SAIB) CE-10-35, "[Loose Equipment in the Flight Compartment and on Glare Shields](#)," which can be accessed from the FAA's Regulatory and Guidance Library website at rgl.faa.gov, also addresses this issue.

This NTSB safety alert and others can be accessed from the NTSB's [Safety Alerts](#) web page at <http://www.nts.gov/safety/safety-alerts/Pages/default.aspx>.