On March 21, 2012 the Aviation Safety Reporting System processed its one millionth safety incident report. This milestone is dramatic affirmation of the program’s vitality, its broad recognition throughout the entire aviation community and confirmation of the value of the safety alerts, publications and research data that it returns to its stakeholders and the flying public. On behalf of the entire ASRS staff, I would like to extend a special Thank You to everyone who utilizes and supports the program; your safety contributions have made this accomplishment possible.

Linda Connell
NASA ASRS Director

On the Lighter Side

While the U.S. Light Sport Aircraft (LSA) category may have less stringent medical and pilot certification requirements than required for a Private Pilot certificate, the problems encountered by pilots of these craft can ultimately be just as serious as those seen in some larger, more complex aircraft. Three recent ASRS reports deal with LSA incidents that were anything but “light weight” for the pilots involved.

A Walk in the Park

This pilot of a Light Sport Aircraft learned that an engine manufacturer’s recommended Time Between Overhaul (TBO) is not a number to be taken lightly. Exceeding the TBO hours, especially with a two-stroke engine, can result in an aircraft falling short of its destination.

While climbing through 1,200 feet at full power over a wooded area, the engine suddenly lost power and quit. An uneventful dead-stick landing in an empty field at a public park followed. There was no damage or injuries. Upon inspection of the engine after landing, it was found to be seized up. Later inspection of the intake port revealed metal debris from internal disintegration. I was lax in getting the engine overhauled at the manufacturer’s TBO of 300 hours. The engine had 350 hours on it since last overhaul. I will be much more diligent in maintenance from now on. Luckily, I walked away from it and no one was hurt.

The Pendulum Effect: A Matter of Timing

Given close enough spacing, even the “wake turbulence” from a powered paraglider can affect similar machines. This pilot’s close encounter led to a deformed “wing,” a swinging approach, and an unintentional landing.

While flying a powered paraglider in low wind conditions, I was making a low approach to practice maintaining altitude at 5 to 10 feet above the ground. Approximately two-thirds of the way down the grass field, I encountered some wake turbulence from another paraglider that was about 30 seconds ahead of me. My parachute partially collapsed on one side which set in motion a pendulum effect. The machine swayed side to side as well as forward. I added full power to recover, but I touched down at an angle. I did not believe the machine would continue to fly, and reduced power to idle. The machine came to rest without flipping over.

The biggest thing that I take away from this is that I did not have in my mind to touch down. I was going to fly down the grass strip and then go around at the end. In the future I will fly every approach as if I might have to touch down and plan accordingly. The second lesson is to recognize the effect of “bad air” on a soft wing at low altitude. This effect can also be caused by buildings, other structures, trees, etc.

The Ups and Downs of an Emergency Landing

Your troubles are just beginning when the propeller departs your Light Sport Aircraft. However, as this pilot demonstrated in a well-handled emergency, there can be a good result when you apply the lessons learned from good training.

I recently acquired a new carbon composite LSA. I am a student pilot and after my CFI provided three days of flight instruction in the aircraft, I departed on a solo flight to an assigned practice area. After executing a series of flight maneuvers at approximately 2,000 feet AGL, the three-blade
propeller departed the aircraft. Just prior to separation, the aircraft acted erratically with short, intense jerking movements in various directions then resumed smooth flight. I must have pulled the throttle to full idle, because I remember advancing the throttle slowly about one inch, slightly spooling up the engine, unaware the prop was gone. Ignorance led me to believe that some internal plate or gear slippage had occurred and that the prop was wind-milling. The VSI indicated a 500 fpm descent rate.

I scanned the wheat, corn and soybean fields and finally selected a rectangular green field and started a long descending final. At some point I realized my landing point was rapidly moving and this field would soon pass by. I kicked in a slip, straightened it out at the last moment and, on touchdown, went for the roller coaster ride of my life. I had landed in a soybean field with a crop approximately 12 inches high and with rolling topography. I touched down near the top of one of the hills, did not porpoise and maintained full aft elevator control during the up, down, up, down ground roll. Fortunately the moisture content of the soil was fairly low, providing very good load carrying capacity at the point of wheel contact....

I shut down all systems and opened the canopy.... I called my CFI via cell phone...and he soon arrived and carefully examined the aircraft for any damage. There was none. My CFI's consistent training provided me with the composure to fly the aircraft... come hell or high water.

On a Different “Lighter Side”

While the aircraft in the next two reports are not in the Light Sport category, there are some aspects of these incidents that might be taken in a “lighter” vein.

A Sign of Trouble

A Tower Controller submitted this report of a night taxi incident in which an aircraft, apparently with no lights on, encountered an unlit sign with an ironic message.

■ It was still dark out when I issued taxi instructions to a PA28 to [taxi to] the runway via Taxiway F. After a minute or so had passed and I hadn’t seen the aircraft begin his taxi, I asked him where he was. Radio problems are not uncommon in that area as there are spots that are obscured by a hangar. He told me he had just passed an intersection and was going to have to get out of the aircraft and assess some damage. I again asked him where he was and found him on a service road south of Taxiway F. He didn’t have any aircraft lights turned on. He had run into a “This Is Not a Taxiway” sign.

An Unexpected Drop-in

The Maintenance Technician who submitted this ASRS report appeared to take all the precautions necessary for working in a compartment accessed through a floor opening in a B767, but he still received an unexpected visit.

■ I was assigned to work on [an aircraft] and when I arrived, the flight crew was already onboard. After I determined what the problem was, I walked to the jet bridge to call for another Technician. At the same time there was a Flight Attendant using the other phone on the jet bridge. As I was talking with the Technician, the Flight Attendant asked me if it was OK to board the passengers. I replied, “No, it is not OK to board. Please hold boarding.” She then continued her conversation with the Gate Agent saying, “The mechanic said, ‘No, it is not OK to board the aircraft. Hold boarding.’”

After I finished my conversation with the Technician, I went back to the cockpit to inform the Captain that I was holding boarding. I also informed the Flight Crew and the Flight Attendants that I had to go down into the E&E (Electrical and Electronic) compartment to do a test...and for them not to let anyone near this area. At that point I proceed to go into the E&E compartment through the floor entrance [near the main entrance door].

Shortly after I entered the E&E compartment I heard a noise. I looked to my right and that’s when I realized that someone had fallen into the E&E compartment. I asked the passenger if he was OK and he confirmed that he was. At that point I called out for help. After a minute or two the passenger stood up. I asked him again if he was OK and he said he was. I watched him as he climbed out of the E&E compartment. I don’t know who allowed passengers to start boarding.

Light Sport Aircraft

Airplanes (both powered and gliders), gyroplanes, powered parachutes, trikes (weight shift control) and lighter-than-air craft (free balloons and airships) may all be certificated as Light Sport Aircraft if they fall within the weight and other guidelines established by the FAA.

Light Sport Aircraft information is available at: http://www.faa.gov/aircraft/gen_av/light_sport/

Ultralight Aircraft

The FAA has a separate definition of Ultralight aircraft which includes extremely light weight (less than 254 pounds if powered or 155 pounds if unpowered). Additional requirements along with licensing, certification and registration information can be found at: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title14/14cfr103_main_02.tpl