

Annual Soaring Safety Foundation Safety Summary
by Soaring Safety Foundation Trustees

This report covers the FY13 (November 1, 2012 to October 31, 2013) reporting period. A review of the NTSB accident database shows an 20% decrease in the number of US soaring accidents during this time period compared to the FY12 reporting period. In addition FY13 saw a 50% decrease in the number of fatal accidents. Finally the number of insurance claims was down another 20+%. Despite all these decreases, there is general agreement that more steps must be taken to continue reducing the number of accidents and eliminate all fatal accidents..

For the twelve-month period ending October 31, 2013, nineteen (19) gliders, three (3) motor-gliders, two (2) tow-planes, and one (1) airplane were involved in twenty-four (24) separate accidents meeting the reporting requirements of NTSB Part 830 of the Code of Federal Regulation. This represents a 20% decrease in the number of accidents reported during the previous reporting period. The five-year average for the FY09 – FY13 reporting period is 29.4 accidents per year, representing a 3.9% decrease in the average number of accidents from the previous five-year period.

While the average number of accidents per year has shown a steady decline since 1981 (averaging 45.6/year in the 80's, 38.6/year in the 90's, 33.5/year in the 00's, and 28.3/year for the first 4 years of this decade) the number of accidents each year remains too high. In addition, the average number of fatalities has remained nearly constant, at just over 6 per year since the mid 1990's. In the FY13 reporting period three (3) accidents resulted in fatal injuries to five (5) pilots and passengers. In addition, three (3) pilots and one (1) passenger received serious injuries while seventeen (17) pilots and three (3) passengers received minor or no injuries.

A review of the three (3) fatal accidents showed that a private pilot with a pilot rated passenger were fatality injured during an aborted winch launch. The glider stalled and spun after the glider intentionally released below 300 ft AGL. A commercial pilot and passenger were fatality injured when the right wing of their wooden glider failed in-flight shortly after completing a loop. A private pilot was fatality injured after the glider stalled and spun with the pilot was making the base-to-final turn. All fatal accidents are still under investigation by the NTSB, more details are given in the main report (<http://www.soaringsafety.org/prevention/reports.html>).

Continuing a long historical trend, the largest number of accidents occurred during the landing phase of flight during this reporting period. In FY13 landing accidents represented 62.5% of all accidents. It should also be noted that seven (7) of the fifteen (15) landing accidents, or 46.7%, occurred while the pilot was attempting an off-field landing. The remaining eight (8) accidents occurred while the pilot was attempting to land on their home airport. It should also be noted that three (3) of these landing accidents occurred while a CFIG was on-board providing instruction. Causes of these accidents include; a wing striking an object (tree, power lines, terrain) during the landing, landing in rain with wind gusts to 38 kts, and misjudging the approach due to improper use of the flight controls.

Proper training and an operational focus on safe arrivals can go a long way toward addressing the landing accident problem. The SSF continues to promote that pilots and instructors adopt a 'goal oriented approach' to pattern planning and execution. The 'goal' is to arrive at your selected landing spot, so that you can stop at a predetermined point. In this approach, the pilot continuously evaluates the gliders flight path taking into account wind speed/direction, lift/sink, distance remaining to the landing spot, glider performance, and the height above the landing spot. The key to accomplishing this approach is to recognize that while most pilots have difficulty picking out a specific angle, every pilot is adept at recognizing changes in angles. Responding to even the slightest change, by making small changes in the gliders flight path or sink rate, will help the pilot remain on the intended glide path to the landing spot. This increases the pilot's chances of successfully dealing with unexpected conditions throughout the landing phase of flight.

Three (3) aborted launch accident, called PT3 events, accounted for 12.5% of the FY13 accidents. A

commercial pilot was seriously injured while conducting a maintenance flight with the rudder cables reversed. A tow-plane struck a parked glider after it departed the side of the runway while conducting a warm-up flight before towing operations began. The remaining accident was an aborted winch launch. Pilots can, and should, mentally prepare for a failed launch by developing a specific set of action plans to deal with several contingencies. The task is then to execute the proper plan at the proper time. Flight instructors should continue to emphasize launch emergencies during flight reviews, check rides and flight training.

Three (3) motor-glidern, were involved in one (1) cruise, and two (2) landing accidents in the FY13 reporting period. One motor-glider was damaged during an in-flight encounter with turbulence during powered flight. One motor-glider was damaged during an off-airport landing, the pilot had shutdown the engine after experiencing severe vibrations. The remaining accident occurred after the glider got low during a 1 mile final and failed to make the intended runway. Motor-glider pilots must consider the possibility that the engine will fail to start or may not continue to operate after it has started. A suitable landing site must be kept within range anytime the engine is operating.

Flight instructors play an important safety role during everyday glider operations. They need to supervise flying activities and serve as critics to any operation that is potentially unsafe. Their main job is to provide the foundation upon which a strong safety culture can be built. Other pilots and people involved with the ground and flying activities also need to be trained to recognize and properly respond to any safety issues during the daily activity. Everyone, students, pilots, ground operations staff, and instructors, should continuously evaluate both ground and flight operations at US chapters, clubs, commercial operations and at contests. An operations safety culture should train everyone to raise safety issues with fellow pilots, club officers, and instructors. By addressing issues before they become accidents, we can improve soaring safety. Only by the combined efforts of ALL pilots can we reduce the number of accidents.

