SSF Soaring Safety Foundation

# EXECUTIVE SUMMARY

For the twelve-month period ending October 31, 2018, fourteen (14) gliders, seven (7) motorgliders, and three (3) tow-planes 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 41.2% increase in the number of accidents reported during the previous reporting period. The five-year average for the FY14 – FY18 reporting period is 21.0 accidents per year, representing a 0.95% 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 24.3/year for the first 9 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 under 6 per year since the mid 1990's and is also considered too high. In the FY18 reporting period seven (7) accidents resulted in fatal injuries to seven (7) pilots and four (4) passengers. Two of these fatal accidents occurred while commercial pilots were taking passengers on commercial rides. In addition, two (2) pilots received serious injuries while fifteen (15) pilots and three (3) passengers received minor or no injuries.

A review of the Seven (7) fatal accidents showed that the ATP rated pilot of a SZD-48 glider in FL was fatally injured during a failed aerotow launch. A pilot of an IS 29D glider in CA was fatally injured following an in-flight separation of the wings. A commercial pilot and passenger were fatally injured in WY when the Blanik L23 impacted mountainous terrain for unknown reasons. The pilot of a standard Cirrus was fatally injured after the glider stall/spun while the pilot was attempting to land. The private pilot was fatally injured when the Ventus 3F motorglider impacted terrain in NM for unknown reasons. The commercial pilot and 2 passengers were fatally injured in VT when the SGS 2-32 impacted mountainous terrain for unknown reasons. The private pilot and passenger in a Duo Discus T motorglider were fatally injured in NV after the Duo's wings failed for unknown reasons. All fatal accidents are still under investigation by the NTSB, more details may be given in the full report available at (http://www.soaringsafety.org/accidentprev/ssfreports.html).

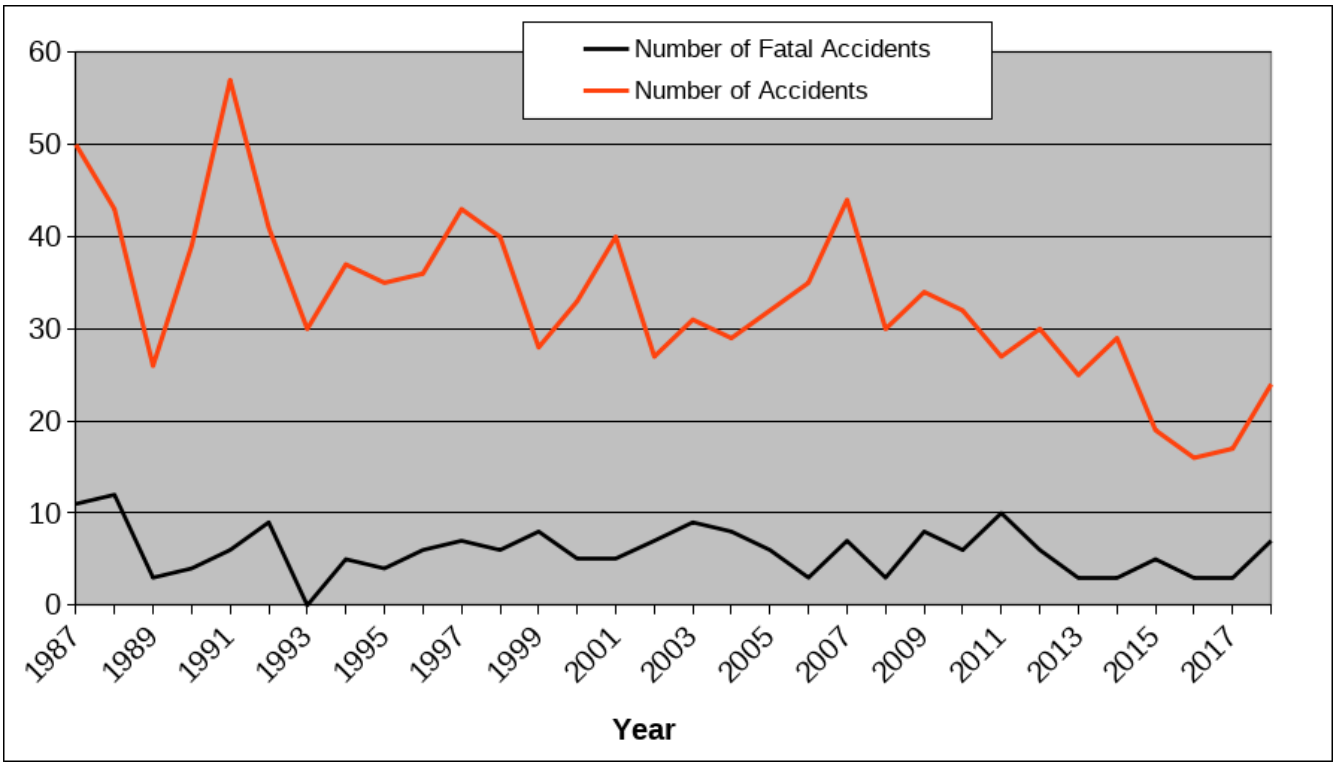
Continuing a long historical trend, the largest number of accidents occurred during the landing phase of flight during this reporting period. In FY18 landing accidents represented 54% of all accidents. Reversing a recent trend, more landing accidents occurred during off airport landings (62%) than landings at the home field (38%). Details of these accidents are given in this report.

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 stop at a predetermined point. This same procedure should be used during every landing, either at an airport or in a field. In addition, for off-airport landings it is important that the pilot mentally transition from cruise flight mode to landing mode with enough altitude to examine the prospective field to determine what obstacles the pilot must deal with. A good rule of thumb is 3-2-1, at 3,000 ft AGL the pilot should have at least one landable field within gliding range. At 2,000 ft AGL the pilot should select a specific field and examine it for obstacles and obstructions. At 1,000 ft AGL the pilot is committed to an out-landing, and mentally switches to landing mode. Making last minute changes while on short final to deal with obstructions is a leading cause of off-airport landing accidents.

Three (3) non-fatal and one (1) fatal aborted launch accidents, called PT3 (premature termination of the tow) events, occurred in FY18 accounted for 16.7% of the accidents. The fatal accident involving the ATP rated pilot was mentioned above. Other accidents are: A commercial tow-pilot received minor injuries after the Callair A-9 tow-plane impacted terrain after the glider kited during the launch. The commercial pilot of a Pawnee tow-plane was not injured after the tow-plane impacted terrain after the glider kited on tow. The CFI and student were not injured after their SGS 2-33 impacted trees after releasing due to an inadequate initial climb. See the full report for more detail.

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.

There were seven (7) motorgliders involved in accidents during the FY18 reporting period. In addition to the two (2) fatal accidents noted above, the following accidents occurred. The private pilot of a RF 5B received minor injuries when the left wing struck a freeway barrier while landing on an interstate freeway. The commercial pilot and passenger received minor injuries after bailing out of a Arcus M after a loss of rudder control. The pilot of a JS1-C was not injured when the right wing struck the ground while landing on uneven terrain. The private pilot of a Virus SW was not injured after the left wing struck a hedge while landing on a runway. The private pilot of a Sinus 912 was not injured but the motorglider was destroyed after a fire started following a precautionary landing. See the full report for more details.




Flight instructors play an important safety role during every day 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. Flight instructors also need to emphasize aeronautical decision making (ADM) and risk management (RM) principles during initial and recurrent training, including flight reviews. The FAA "Wings" program provides an excellent recurrent training platform which also meets the flight review requirements. The emphasis on ADM and RM can be seen in the new Airman Certification Standards (ACS). The FAA is currently revising all Practical Test Standards (PTS) to this new standard which will eventually include glider training and testing.

Other pilots and people involved with the ground and flying activates 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.

The Soaring Safety Foundation offers both anonymous Site Surveys as well as Safety Seminars at your location as a part of our ongoing commitment to safety. The SSF also offers Flight Instructor Refresher Courses for Flight Instructor recurrent training. More information on these and our growing collection of on-line safety and training programs can be found on our website. http://www.soaringsafety.org