

Safety Briefing



Accident Review 2021

This booklet offers guidance on how everyone can help to avoid accidents. The detail is relevant to all glider pilots, regardless of experience. Please read it carefully.



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INTRODUCTION

A partial return to pre-pandemic levels of gliding activity, begun in 2020, continued at a gradual pace in 2021 and, for much of the year, many clubs appear to have maintained a cautious approach to instructional flying in general and trial lessons in particular.

The accidents and incidents recorded this year are similar in number and character to those recorded last year, although ground handling incidents feature more prominently. Several accounts of flying accidents this year refer to a lack of pilot currency being a contributory factor.

CONTINUING SAFETY GUIDANCE

Safety Information

[MANAGING FLYING RISK](#) is regularly updated.

Please review that guidance regularly, together with the Safety Briefings and other Safety material on the BGA website. It might help you to avoid an accident.

BGA website safety Information links

The following BGA website links detail important safety topics:

[Safety home page](#)

- [Managing Flying Risk](#)
- [Safety Briefings](#)
- [Collision Avoidance](#)
- [Safe Winch Launching](#)
- [Safe Aerotowing](#)

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2021 ACCIDENTS AND INCIDENTS

During the year, there were 114 reported accidents and incidents, including 6 serious injuries and 37 substantially damaged aircraft. In comparing this year and last with pre-pandemic years the reduced level of gliding across the country should be borne in mind.

	Fatality	Serious injury	Substantial damage	All
2021	0	6	37	114
2020	1	6	31	123
2008-2019 average	1.8	4.4	60	157

SERIOUS INJURY

There were no fatal accidents in 2021, but there were 6 pilots seriously injured in a total of 5 accident events.

The five accidents involving serious injury were

- Self-launch, spin from 200ft on climb out. Subject to AAIB investigation.
- Simulated launch failure at 150-200ft, spun in. Both pilots seriously injured.
- Glider drifted downwind and landed heavily in a field following a slow approach.
- On approach, the glider turned at 150ft over the airfield and ended inverted in a nearby field.
- Winch launch failure at low level, stalled and crashed.

Several of these serious accidents could easily have resulted in a fatality. The margin between a scary moment and a catastrophic accident is often slight.

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SUBSTANTIAL DAMAGE

29 of the 37 substantial damage accidents are associated with a limited number of accident categories.

Accident category	Number of reports	Number of aircraft Substantially damaged	
Stall/spin	2	2	Both accidents occurred at low level and resulted in substantial damage AND serious injury
Undershoot	4	3	Lapses in judgement are a common underlying reason for under shoot events. Three such accidents this year led to substantial damage.
Winch	5	3	Two accidents followed power loss in the early part of the launch. One involved a wing drop and cartwheel.
Field landing	12	6	Three heavy landings, two collisions with something on the ground, and one landing in crop.
Ground	18	9	Five towed gliders and two vehicles driving over wing tips. One inadvertent canopy jettison. One engine ground run accident.
Landing on airfield	10	4	One hit something on the ground. One heavy landing on a hard runway. One tug prop strike. One tug nosed over after landing on soft ground.
Aerotow	10	2	One wing-drop and cartwheel. One tug nosed over.

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KEY SAFETY MESSAGES

This summary shows the need to remind everyone of some key safety messages:

Fly the aircraft.

Landing, under control, wings level on any surface is generally preferable to a stall and spin at low level.

Keep winch launching safe.

Since the introduction of the BGA safe winch launch initiative 16 years ago, it has been very effective in reducing the number of winch launch accidents and the tally of injuries sustained. The risks remain, and constant vigilance is necessary to further reduce accidents. Last year there were several hazardous flights after winch launch failures, thankfully without serious consequence. This year, similar failures resulted in two serious injuries and several accidents involving substantial and expensive damage.

An updated safe winch launch booklet is available from the BGA office and through the BGA website. It is an invaluable guide to safe winch launching and

contains a new section on how a team effort, by everyone involved in the launch, can help to avoid a wing drop.

Please secure a personal copy of the Safe Winch Launch booklet and follow the guidance.

Check rides are good value for money.

Undershoot accidents are often associated with lapses in judgement. It is possible that a lack of pilot currency, resulting from reduced opportunities to fly during pandemic restrictions, may have influenced the incidence of this, and perhaps other categories of accident. In these circumstances, taking additional check rides, to brush up on technique and decision making, is a cheap alternative to enduring the consequence of an expensive, substantial damage accident.

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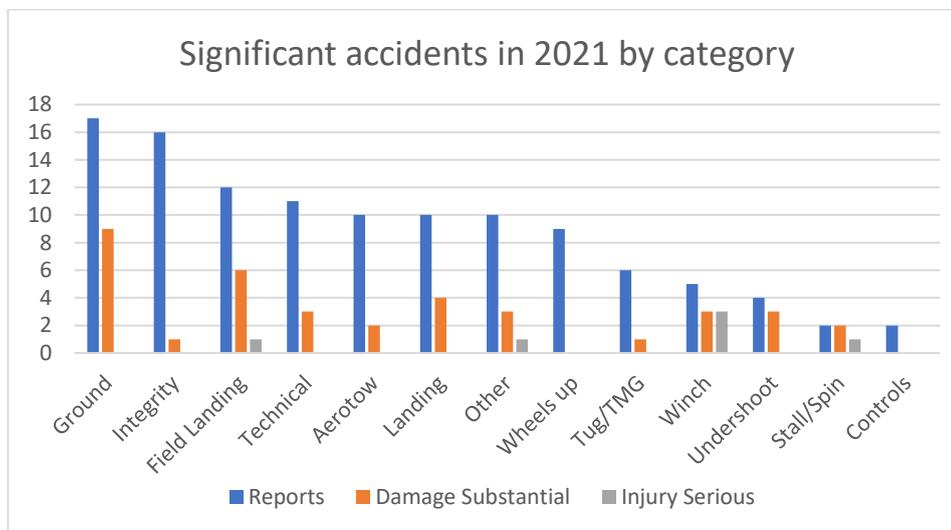
2021 OVERVIEW

A summary of the total numbers of each of the accident/incident categories reveals further insights into those areas needing particular attention if we are all going to reduce the number of accidents and reduce the cost of insurance claims.

Accident Category	Reports	Definition
Ground	17	Tow out or manoeuvring gliders, or vehicles close by.
Glider Integrity	16	Gliders not properly prepared for flight
Field Landing	12	All field landing accidents except those involving stall/spin, which are counted in that category
Aerotow	10	All aerotow accidents except those involving stall/spin, which are counted in that category
Technical	11	Something broke or did not work as intended.
Landing	10	At the home airfield
Other Flying Accident	10	Any not covered by any of the other available categories
Wheel-Up Landing	9	All wheel-up landings except those involving misuse of controls, which are counted in that category
Tug/TMG	6	All such occurrences that do not fit under any other heading.
Incomplete Winch Launch	5	Any during, or immediately after, an incomplete winch launch, unless there was a prior cause, for example mis-rigging.
Undershoot	4	At the home airfield. Any that occur during field landings are counted in that category.
Stall/Spin	2	Any involving a stall or spin as the apparent immediate cause.
Misuse of Controls	2	Use of one control attempting to achieve the intended effect of another
TOTAL	114	

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ACCIDENTS INVOLVING SUBSTANTIAL DAMAGE OR SERIOUS INJURY



A lot of accidents occurred while manoeuvring gliders on the ground or driving vehicles near to them. These form a significant fraction of all substantial damage accidents, but thankfully this year caused no serious injuries.

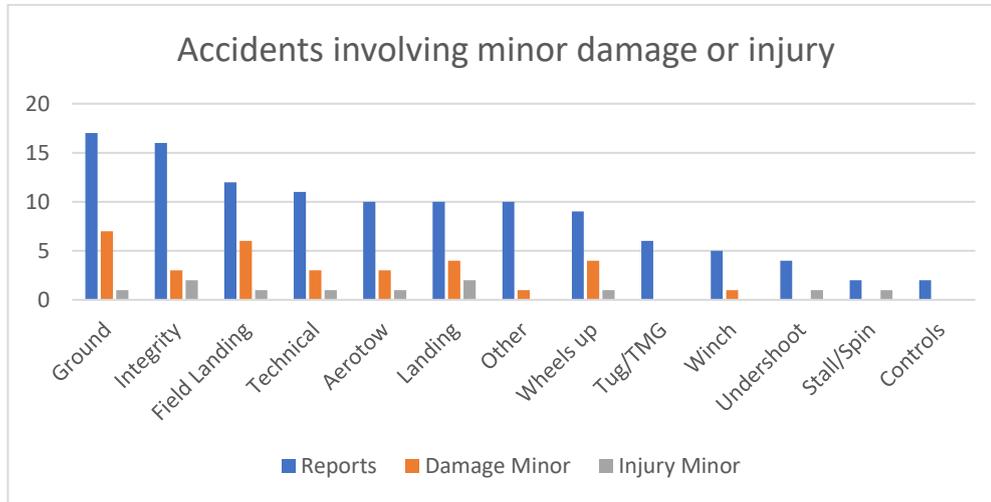
There were also many accidents while landing, either on the home airfield or in a field.

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There were also numerous reports of failure to prepare a glider properly for flight (glider integrity). Such errors can be fatal, but this year's pilots were lucky: there were no serious injuries and only one glider suffered significant damage.

Although accounting for a small number of accident reports this year, winch launch accidents, undershot arrivals and stall/spin events are particularly hazardous and often involve substantial damage and serious injury.

ACCIDENTS INVOLVING MINOR DAMAGE OR INJURY



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2021 ACCIDENTS BY CATEGORY

Ground

Half of the reports described substantial damage, with 5 gliders towed into obstacles and 2 cars driven over wing tips. Dilapidated tow out gear, including worn catches, fixings pulled out of glass fibre and broken tow-out arms, is a major concern.

These accidents are expensive and avoidable!

Glider Integrity

Preparing the glider properly for flight is of paramount importance but was not achieved on 16 occasions this year. Reports included 5 unlocked airbrakes, 4 insecure canopies, 4 rigging errors and 1 winch launch and circuit flown with the tail dolly still attached. Amazingly, only two minor injuries resulted from these oversights and damage reports were few and between, although one rigging error caused the destruction of the glider after the pilot baled out.

The following guidelines have been repeatedly published in recent years:

- Rigging should be directed by a person experienced on the type, in accordance with the flight manual, without interruption or distraction.
- A newly rigged glider should always have a daily inspection (D.I.) which should be conducted by a person experienced on the type without interruption or distraction.
- A newly rigged glider should always have positive control checks.
- The pilot should carry out proper pre-flight checks, again without interruption or distraction.

Please follow this advice!

Field Landing

There were 12 reports from 6 cross country flights, 3 competition flights and 3 local soaring flights. 6 gliders sustained substantial damage. 3 reports involved failed turbo starts and there were several instances where late field selection was a contributory factor.

Please pick a field early!

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Aerotow

Ten reports included 2 substantial damage accidents. Three events could easily have been fatal and only good fortune or, as in one case, prompt action on the part of the tug pilot averted an ultimate disaster.

The tug pilot wisely dumped the glider at 300' when the glider got out of position and the tug stick touched the back stop.

A wingdrop and cartwheel by the glider, while the tug was still on its ground run, fortuitously ended with only minor injuries to the glider pilot, but the glider was substantially damaged.

A glider spun in after low release from the tow due to tug power loss. Subject to AAIB investigation.

Landing – at the home airfield

The four substantial damage accidents involved 2 prop strikes (Tug and TMG), 1 heavy landing and 1 collision on the ground run. Other minor events included 5 heavy landings and 2 ground loops. Fortuitously, only one minor injury was sustained.

Winch

In recent years the sustained safe winch launch initiative has achieved a significant reduction in the total number of winch launch accidents. Continued attention to the safety advice is required to keep accidents at bay. This year there were 5 reported accidents, of which 3 involved substantial damage and 3 pilots were seriously injured.

- Wing drop and cartwheel
- Launch failure practice at low level led to stall/spin while attempting to turn during recovery.
- Cable detached at low level, the glider stalled after a delayed recovery action and crashed straight ahead.

Wing drop events remain a concern AND, stall/spin accidents have returned to the accident list.

An updated safe winch launch booklet is available from the BGA office and through the BGA website.

Collision

There have been no glider-glider airborne collisions reported for 7 years, possibly aided by more widespread use of FLARM equipment.

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There were however 4 near-miss events this year that might have been alleviated if effective anti-collision systems had been in use on some of the aircraft involved.

- A head-on glider/glider encounter while ridge soaring. One aircraft not fitted with FLARM.
- Mirror circuit involving a glider and a TMG. The glider was fitted with serviceable FLARM; the TMG had SkyEcho fitted, but apparently was not operational.
- Glider/glider near-miss on finals. The higher aircraft (flying a trial lesson) landed long, but then had to ground loop to avoid obstructions, The glider sustained substantial damage. Anti-collision equipage was not mentioned in the report.
- Airprox involving a tug/glider combo and a free flying glider. There was a complex electronic conspicuity set up among the various aircraft, with apparently unserviceable devices and radio availability issues.

Wheels Up Landing

There were 4 instances of minor damage from a total of 9 reports, in 7 of which the pilot forgot to lower the undercarriage, while in the other 2 the pilots flew the sortie with the gear down and raised the wheel for landing.

Other Flying Accidents

The 10 reports included 3 winch cables falling on other aircraft or vehicles and one near to pedestrians; one instance of Vne being exceeded during aerobatics; and one instance of confusion about backup winch signalling by lamp.

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Allianz Global Corporate & Speciality SE
www.agcs.allianz.com



Phone: 01765 690777
www.hillaviation.com

British Gliding Association, 8 Merus Court, Meridian Business Park, Leicester. LE19 1RJ
Telephone: 0116 289 2956
office@gliding.co.uk
www.gliding.co.uk

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