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# BHPA Incident Report: GBR-2022-22803

## INCIDENT

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| **Aircraft Type:** | BGD Cure (M 75-95kg). Serial no. BG0415016P. Nova Somnium harness. Serial no. S1009. Gin Yeti 40 parachute. |
| **Certification:** | EN-C |
| **Manufacture Date:** | July 2016. Hours unknown. |
| **Location:** | The incident occurred on Parlick hill, west face, in Lancashire. OS grid reference SD594451 |
| **Date and Time:** | Monday 18th April 2022 at approx. 17:15. |
| **Type of Flight:** | Ridge soaring. |
| **Persons Involved:** | Paraglider Pilot A. |
| **Injuries:** | Serious. Fractured ribs, collar bone and suspected T10 compression. |
| **Nature of Damage:** | None. |
| **Pilot's Rating/Licence:** | BHPA Club Pilot hill. |
| **Pilot's Age:** | 65 |
| **Pilot's Experience:** | Pilot A's hours are unknown. Information on Pilot A's flying experience is based on the witness statements of close friends. Pilot A began paragliding in the late 1980's at the start of paragliding in the UK. Pilot A is known to have had a wide variety of paragliding experience, having flown on numerous European flying trips. These were predominantly thermic flying trips to countries including France, Italy, Spain, Morocco, Portugal and Slovenia. Pilot A had a break from paragliding between approximately 2010 and 2016. The trips to Slovenia, Spain, Portugal and Morocco were after this break. |
| **Information Sources:** | Witness statements, Met Centre aftercast, independent glider report. |

## 1.0 Synopsis

On Monday 18th April 2022, Pilot A was at Parlick west face with the intention of flying their paraglider. At approximately 17.00 Pilot A launched their paraglider and initiated a right hand turn to the north. Almost immediately, Pilot A's paraglider was seen to have a large asymmetric collapse on the left side of the wing. Pilot A's wing was seen to drop almost vertically, approximately 10-12m, on to the steep slope. Pilot A was attended almost immediately by other pilots, who performed first aid and called the emergency services.

## 2.0 History of the flight

On the afternoon of Monday 18th April 2022, Pilot A and Pilot B walked up to the western side of Parlick hill with the intention of flying their paragliders. Pilot A and Pilot B discussed where to take off from. Pilot B chose to take off from below the wall on the west face as they wanted to re-attach their harness and check their lines in an area where it was less windy. Pilot A continued in a northerly direction along the path and set up above the footpath, some 100m from Pilot B and approximately 30m vertically above them on the hillside. Pilot B estimated that there were approximately 12 paragliders flying at this time and that the wind was approximately 12mph at their location.

Pilot B checked their equipment and launched their paraglider at 16.56.

During this time, Pilot A was joined by paraglider pilot, Witness A. Witness A set up their equipment approximately 15m from Pilot A, at the same altitude and to the south.

Pilot A launched at approximately 17.00. Witness A described the launch as a normal reverse inflation, turn around, and lift off. They go on to describe how Pilot A only just cleared the ground with their harness seat, brushing the top of the grass but with no noticeable friction. They then describe how, within a second of taking off, Pilot A's paraglider suffered a large asymmetric collapse on the left side of the wing, as Pilot A was initiating a right turn. They go on to describe how Pilot A fell, almost vertically, onto the steep slope some 10 to 12m below.

Pilot A was immediately attended by Witness A, who carried out a first aid assessment and called the emergency services. Witness A was aided shortly after by two other paraglider pilots. At approximately 19.00 Pilot A was airlifted to Hospital. Pilot A remained conscious throughout.

Pilot A died in hospital three days later from a heart attack, believed to be the result of a hereditary heart condition.

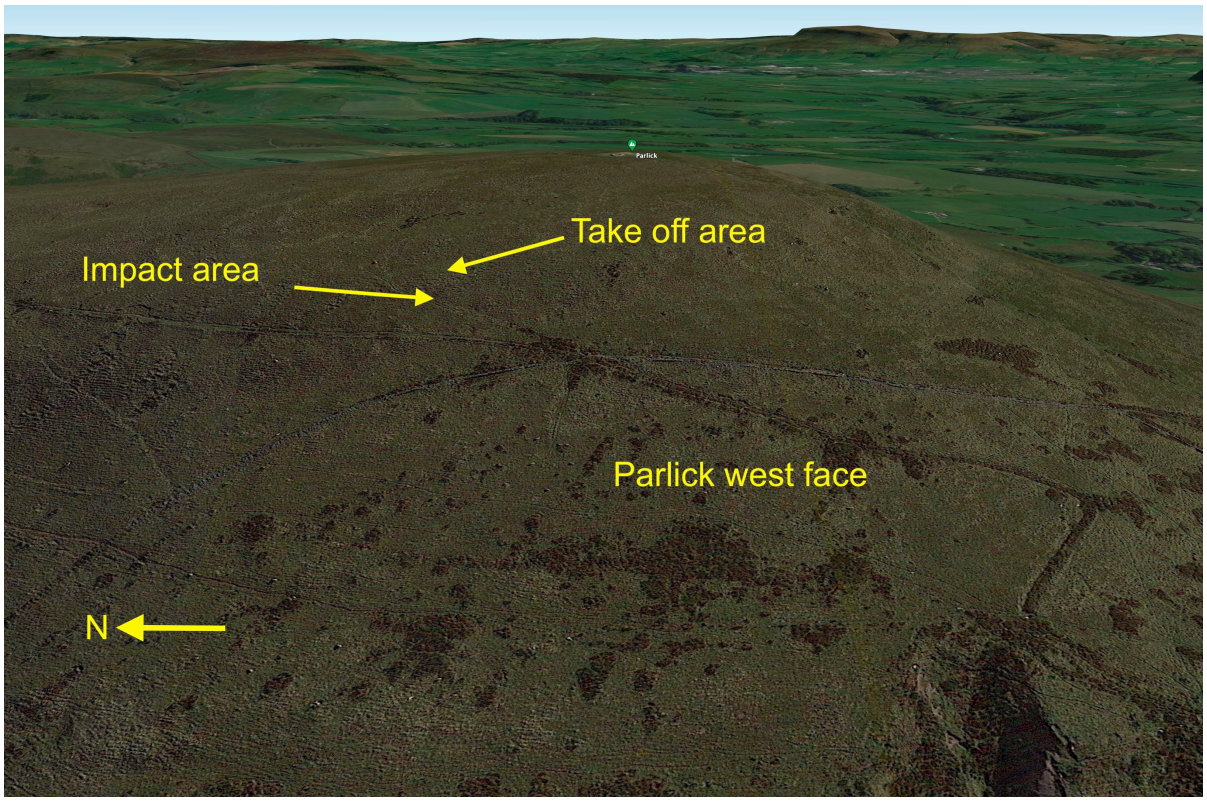
## 3.0 Focus

Based on the information available, the Investigation considered the site, the weather conditions, Pilot A's paragliding equipment, Pilot A's paragliding experience, and Pilot A's actions during the incident.

## 3.1 The Site

Parlick hill is situated in Lancashire, to the north of Preston. Parlick forms the southernmost tip of a large escarpment ranging in height from between 300 and 500m above sea level. Parlick is a popular site for paragliding and hang gliding as it takes a variety of wind directions and has good cross country potential.

The incident occurred on the west face of Parlick. The following Google Earth image shows the west face of Parlick with the approximate take off and impact sites.



Parlick west face with take off and impact sites.

Parlick consists of rough, open moorland with grass tufts and patches of bracken. There are a number of dry stone walls though these are largely dilapidated. The area would be considered ideal for paragliding. The following photo shows the view from Pilot A's take off point.


View from Pilot A's take off area looking to the west.

Though the ground is undulating with numerous small gullies, there is little of substance to cause any significant mechanical turbulence.
The Investigation did not consider the site to have been a factor in this incident.

### 3.2 The Weather Conditions

A Met Centre aftercast was obtained and the Summary is as follows:

*Across the various records available, the surface wind was forecast to be light southwesterlies, and this is supported by nearby airport observations of 3-7kt. The forecast at nearby N5500 W00230 was for 1000ft and 2000ft winds west-south-westerly 15kt, becoming southwesterly 15kt at 5000ft and 10000ft.*

*There was a trough nearby (from Merseyside down towards the south coast of England), associated with a fragmented band of showers, however these did not lower the visibility below 10km or cloud base below 4200ft when they passed Manchester airport. The lowest cloud bases reported at Blackpool airport were few at 1600ft.*

Evidence from witnesses suggests that the weather was post frontal and that the conditions had improved throughout the day, with the winds gradually decreasing. At the time of the incident, witnesses estimated the wind speed on the top of the hill to be in the region of 14 to 18 mph. This is roughly in line with the Met Office prediction of 15kt for this area and altitude.
Witnesses also stated that there was thermic activity on the day, with indicated climb rates of 2 to 3m/s. In general, the witnesses stated that the thermic activity was normal without any excessive turbulence. However, one witness stated that they had experienced some rough air while thermalling above the hill around the time of the incident.
The description of the weather conditions by the various witnesses describes a typical post frontal afternoon. The time of day being the limiting factor regarding thermal strength. Thermals were generally described as 'mild' or 'weak' though there was some associated turbulence. It is possible that Pilot A launched just as a thermal, and its associated turbulence, passed through their take off area, and that this turbulence caused the asymmetric collapse. Sinking air associated with the thermal may be the reason Pilot A appeared to fall vertically after the asymmetric collapse. For this reason, the Investigation found that the weather conditions may have been a factor in this incident.

### 3.3 Pilot A's Equipment

Pilot A was flying a BGD Cure paraglider with a Nova Somnium pod harness at the time of the incident. The harness was found to be in good condition.
The paraglider was sent to an independent service centre to be inspected. The service centre carried out a visual inspection, a porosity check and line measurements. The paraglider was found to be in good overall condition with good (low) porosity. The paraglider was found to be trimmed slightly asymmetrically, with the lines on the left side of the wing being slightly longer on average than those of the right. Though slightly asymmetric, the line lengths were within the manufacturer's tolerances. The stabilo lines (13 and 14) were found to be slightly out of tolerance by 5 and 8mm respectively. The degree that the paraglider was out of trim would be extremely unlikely to have a noticeable impact on the performance of the wing.
The control (brake) lines were found to be between 5 and 6cm shorter than specified. This is likely to be due to natural shrinkage and twisting. During normal flight it is unlikely that Pilot A would be aware that the control lines were shorter than spec. They would have become used to the gradual shortening without noticing as 5-6cm shorter controls would have little or no impact on the performance of the paraglider. Where this shortening may be an issue is when a pilot needs to make sudden and direct control inputs, for example when needing to recover from an asymmetric collapse. The BGD Cure is certified EN-C and as

such requires precise pilot input when attempting to recover from dynamic and unstable situations, such as occur during an asymmetric collapse. With the control lines being shorter than specification it would be easier for the pilot to inadvertently induce a stall, by excessive use of the controls.
The Investigation found that the trim of the paraglider controls may have been a factor in this incident.

### 3.4 Pilot A's Experience

Pilot A's total hours are unknown. However, anecdotal evidence suggest they were an active pilot throughout the 1990's and early 2000's. Pilot A is known to have taken a break from flying between 2010 and 2016 but then continued, attending several trips abroad as well as flying in the local area. Though Pilot A held a BHPA Club Pilot rating, there is no evidence to suggest that Pilot A did not have the required experience to fly the BGD Cure paraglider in the weather conditions that prevailed on the day of the incident.
The Investigation found that Pilot A's level of experience was not a factor in this incident.

### 3.5 Pilot A's Actions

Pilot A launched from Parlick west face with what appeared to be a standard reverse launch inflation. However, immediately on becoming airborne, Pilot A's harness brushed the grass on the slope indicating they had either launched into sinking air or had not gained sufficient airspeed to effect a clean launch. The lack of airspeed could be a direct result of the harness contacting the ground, or it could have been due to Pilot A not gaining enough speed during their take off run.
It is known from the evidence from close friends that Pilot A suffered with back pain and had reduced mobility in their hips. Without further evidence it is impossible to say whether these physical issues had an impact on Pilot A's ability to launch the paraglider.
As Pilot A became airborne, they immediately made to turn right, in a northerly direction. At this precise moment the paraglider suffered an asymmetric collapse on the left side of the wing. The wing did not rotate whilst moving forward as might be expected but dropped vertically onto the steep slope below. This would indicate the presence of rapidly sinking air or that the paraglider was stalled, possibly because of having insufficient airspeed on launch. Witness A's view of Pilot A was obscured by the paraglider wing at this point. It is therefore not possible to say what Pilot A was doing with the controls at this time.

## 4.0 Findings

The Investigation found that the incident occurred as a result of Pilot A losing control of the paraglider immediately after launch and being unable to effect a recovery before impacting the slope.
Turbulence caused by the thermic nature of the air that afternoon may have been a factor in this incident.
The paraglider control lines being 5-6cm shorter than specification may have been a factor in this incident.
The actions of Pilot A in launching the paraglider and during the period where the paraglider had departed from normal flight may have been a factor in this incident.

## 5.0 Recommendations

The Investigation recommends that the BHPA, via its magazine Skywings, reminds paraglider pilots of the importance of having their gliders regularly checked, and especially in relation to line length specification.