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## **BHPA Incident Report: GBR-2016-2971**

### **INCIDENT**

<b>Aircraft Type:</b>	Ozone Delta 2. Size ML (85-105kg). Serial number DML-0-02C-135. Advance Lightness 2 harness with Skyman 'Ultra Cross 100' emergency parachute.
<b>Certification:</b>	EN C
<b>Manufacture Date:</b>	25.01.2015 Hours flown unknown
<b>Location:</b>	Fleetwith Pike, Buttermere, Cumbria.
<b>Date and Time:</b>	Friday 18 <sup>th</sup> September 2015 at 16.10 BST
<b>Type of Flight:</b>	Cross country flight.
<b>Persons Involved:</b>	Paraglider pilot.
<b>Injuries:</b>	Fatal
<b>Nature of Damage:</b>	The glider and harness were damaged as a result of the incident with further damage to the glider being sustained during the recovery of the pilot.
<b>Pilot's Rating/Licence:</b>	BHPA Club Pilot (novice) rating awarded in October 2009.
<b>Pilot's Age:</b>	38
<b>Pilot's Experience:</b>	The pilot's total hours are unknown. However, analysis of the pilot's flight instrument shows twenty flights logged since 11 <sup>th</sup> August 2015 totalling approximately 20 hours. Data from the UK Cross Country flying league shows the pilot logged 15 cross country flights since 2013 totalling over 1000km and including two flights well over 100km. The four most recent were logged in August and September 2015.
<b>Information Source:</b>	Witness statements. Data obtained from the incident pilot's Flymaster GPS flight recorder. Camera footage from the incident pilot's Go-Pro camera.

## Synopsis

While on a cross country flight in the Lake District a paraglider pilot lost control of his paraglider when in close proximity to the fell side on Fleetwith Pike, near Buttermere. The pilot was unable to regain control of the glider before impacting the slope where he sustained fatal injuries.

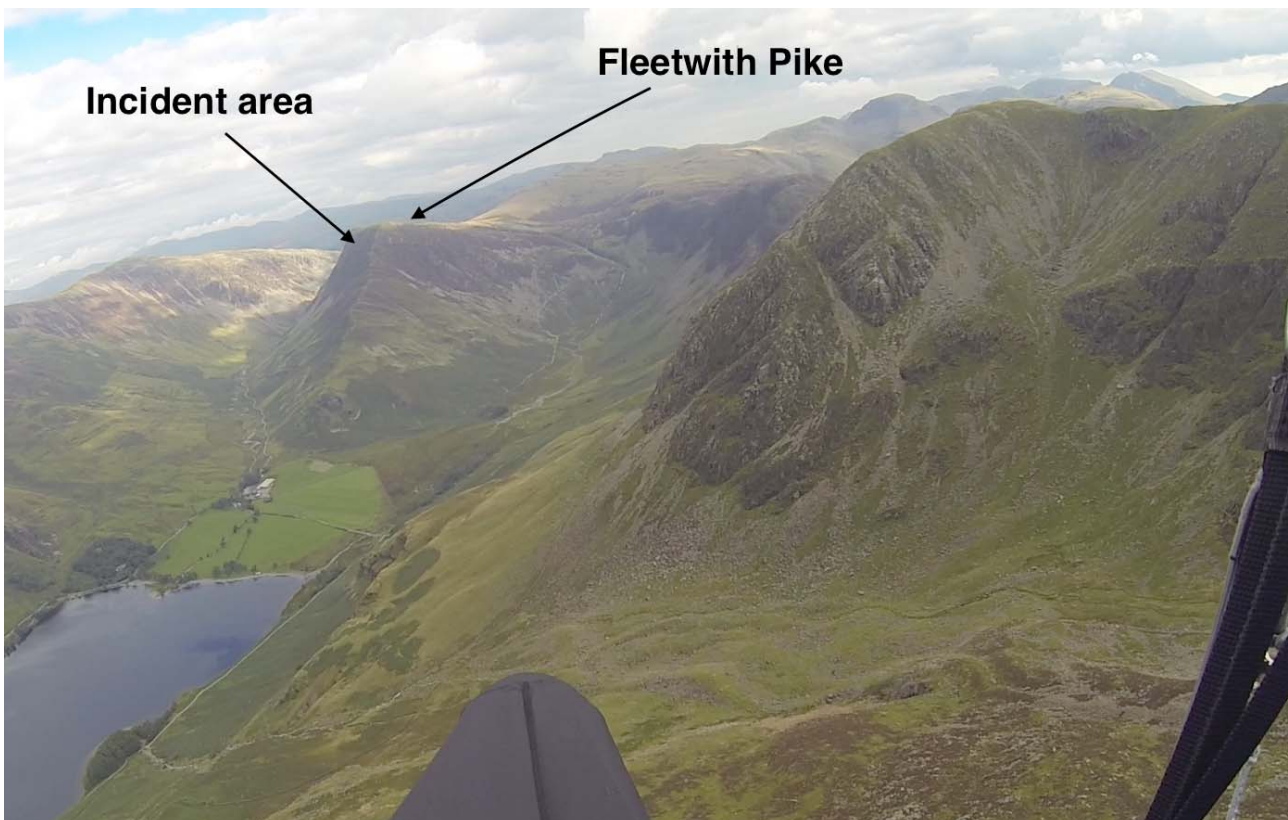
## History of the flight

On Friday 18<sup>th</sup> September 2015 at approximately 1pm (all times BST), five paraglider pilots, including the incident pilot 'Pilot A', arrived at the site known as Burnbank in the Lake District. Burnbank Fell is approximately 15km west of Keswick and overlooks Loweswater. The weather was overcast with a light east/north-easterly breeze. On arrival the pilots considered the conditions too light and waited for the conditions to improve.

At approximately 2pm one of the pilots took off in the light conditions. He attempted to stay up but was forced to land shortly after take-off, having been unable to find any significant lift. At approximately 2.30pm the conditions improved slightly as the sun had begun to break through the cloud resulting in some light thermic activity. Within the space of ten minutes the remaining four pilots had taken off. The pilots were able to climb to cloudbase at approximately 3000ft and then headed off in the direction of Buttermere.

The pilots arrived in the area around Red Pike overlooking Buttermere, with differing altitudes. The lower of the pilots landed at Buttermere having been unable to find further lift. Another, who had arrived with more height, continued in a southerly direction. Pilot A and the remaining pilot, Pilot B, continued to soar the northerly side of the ridge in the area to the west of Red Pike in an attempt to gain further height. After approximately thirty minutes Pilot A was able to gain height and headed off in a south-easterly direction towards Fleetwith Pike. This was the last time Pilot B saw Pilot A.

Pilot A continued down the line of fells formed by High Stile, High Crag and Hay Stacks before crossing the valley to Fleetwith Pike.



The photo above is a still image taken from the video footage on Pilot A's Go-Pro camera. It shows Pilot A flying towards Fleetwith Pike with High Crag in the foreground. The still is taken at 4pm approximately ten minutes before the incident occurred. Pilot A turned off the Go-Pro camera before making the glide to Fleetwith Pike. There was no further footage. When Pilot A reached Fleetwith Pike he was approximately 100m below the summit. He began soaring the north-facing slope. Having completed two beats and flying in a westerly direction, Pilot A lost control of his paraglider and impacted with the steep ground in the area of Burnt Scarth on Fleetwith Pike, where he sustained fatal injuries. The incident occurred at 4.10pm. There were no witnesses to the incident. Pilot A's body was found by the Cocker mouth Mountain Rescue team early the following morning.

### **Additional information**

The investigation considered the evidence from the other three pilots who were able to climb away from Burnbank and fly towards Buttermere. All three pilots described the conditions as light wind with some gentle thermic activity. None of the pilots experienced any form of turbulent air, be it either thermic or dynamic. This evidence is backed up by the track log taken from Pilot A's GPS flight recorder. The flight recorder shows a maximum climb rate of 2.5m/s and a maximum ground speed of 50.1km/h. This ground speed was achieved while Pilot A was gliding down wind parallel with Crummock Water in the direction of Buttermere. During this part of the flight Pilot A's ground speed exceeded 40km/h for a period of only four minutes with a spell of 50km/h for approximately one minute. Assuming Pilot A was not using his speed bar, this would give a maximum wind speed in the region of 10 – 16km/h (6 – 10mph), based on the trim speed of the glider being approximately 36 – 38km/h.

Close, second by second examination of the flight data for the moments leading up to the incident shows Pilot A in a steady soaring glide along the upper slopes of Fleetwith, flying in a westerly direction. At this time his sink rate is steady, averaging just over -1m/s, indicating that the surrounding air is neither lifting nor descending to any noticeable degree. He then flies into an area of lifting air, which briefly peaks at 3m/s. The logged period of lift lasts for six seconds. Throughout this period it averages 2m/s. Pilot A then begins to descend while still travelling in a westerly direction, gradually at first at a rate of -1m/s for three seconds, and then more rapidly reaching over -7m/s within two further seconds. At this point the data shows Pilot A in a descending left hand turn until he collides with the fell side some time within the next ten seconds.

### **Findings**

Pilot A was a current and experienced cross-country pilot. The conditions on the day were challenging in that they were lighter than would be considered ideal for cross-country flight, with light winds and gentle thermic activity. It is clear from the data however that Pilot A encountered lifting air immediately prior to losing control of his paraglider. In all probability it is this air that causes Pilot A to lose control, resulting in the fatal impact. The origin of this thermic air is unclear as this side of Fleetwith Pike is north facing and was therefore not in direct sunlight. It is possible however that the thermal originated on the south facing slope of Buttermere Fell, on the other side of the valley, and drifted with the prevailing wind up Fleetwith Pike. What caused the thermal to be turbulent enough to make Pilot A lose control of his paraglider is unknown.

The Investigation finds that the incident occurred as a result of Pilot A losing control of his paraglider due to encountering turbulent air while in close proximity to the hillside.

### **Recommendations**

No recommendations.