
BHPA Incident Report: GBR-2024-34782

INCIDENT

Aircraft Type:	Paraglider: Gin Evora (small) Serial number BC12-Q1120096M.
Certification:	Certified to EN 926-2, Class B for weight range 75-95 kg.
Location:	Foule Crag, near Sharp Edge, Blencathra, Lake District.
Date and Time:	25 th February 2024, around 13:58 UTC.
Type of Flight:	Cross country flight.
Persons Involved:	Pilot A.
Injuries:	Cause of death listed as: 1 (a) Multiple injuries.
Nature of Damage:	Significant damage to the paraglider.
Pilot's BHPA Rating:	BHPA Paragliding Pilot (Hill) rating, holder of an Air Experience Instructor licence.
Pilot's Age:	63
Pilot's Experience:	Approx. 2,500 logged hours on paragliders (solo and tandem).
Information Sources:	Statements provided by Pilots B, C and D; a statement and visual media provided by Witness E; statements provided by the Police from Pilot B, Witnesses F, G and H; a background statement provided by Witness K. An Aftercast from the Met Office. RASP historical weather data (rasp.stratus.org.uk). Supplementary weather and flight information from Pilots B, C and D. A report on the condition of the paraglider from an independent expert. A visual inspection of equipment that the Police made available to the Investigation. Pilot A's flying logbooks.

The objective of this Investigation is to prevent future accidents and incidents. It does not seek to ascertain blame or apportion legal liability for claims that may arise.

BHPA reports are presented in de-gendered format to protect identities.

1.0 Synopsis.

On 25th February 2024, a group of six paraglider pilots including Pilot A and Pilots B, C and D walked to a launch area on Carrock Fell with the intention of flying. Pilots A and C had discussed making a cross-country flight. The wind on take-off was a light breeze from the east-southeast

with negligible gusts. Pilot A launched at approximately 13:00 and was seen to descend out of sight of the other pilots at the launch area. Pilot A landed on the slope and radioed on the local club frequency to confirm they had landed. Pilot A then launched again, was seen to gain significant altitude and head in an approximately south-southwesterly direction towards Bowscale.

Pilot A radioed to confirm that they had found sinking air on their way to Bannerdale Crag, but the conditions they were experiencing were working well. Pilot A commenced soaring Foule Crag, a northeasterly facing bowl marked with steep rock faces. They were seen by walkers to be soaring close to ridgetop level for a number of minutes. The paraglider was then seen to depart from normal flight and collapse. It descended rapidly and Pilot A impacted the steep rock face of Foule Crag / Sharp Edge. The emergency services were called; however, Pilot A died from the injuries they sustained in the impact.

2.0 History of the flight.

Pilot A and Pilot C had discussed making a cross country flight, and Pilot A had parked their car at Threlkeld in preparation for this flight. Pilot C stated that the intention of the flight was to try to fly back to the car, the flight being a straight line distance of approximately 8km from Carrock Fell in a south-southwesterly direction.

The group of pilots including Pilots A, B, C and D walked up the northeastern flanks of Carrock Fell, a hill in the north east of the Lake District. The conditions were described as light winds from an easterly direction, and the pilots moved location to a more suitable launch point which was facing into wind. This area, known as "The Trough", is approximately 1800 ft above mean sea level (amsl).

Pilot A was seen to launch and fly out over the crags and descend to be out of sight of the pilots on the ground. Pilot A made a radio broadcast to state they had landed on the side of the slope. Pilot A then launched again and climbed in thermic lift. Pilot C noted that the wind was a light easterly, but conditions were buoyant and it was easy to stay in lifting air.

Pilot C launched at 13:23 and shortly after launching noted a paraglider high and south of Carrock Fell. They noted that the paraglider appeared to be at cloudbase, and as this aircraft was a similar colour to Pilot A's, and had headed in the direction Pilot A had intended to fly, they assumed this was Pilot A's paraglider. Pilot C stated that the conditions remained good for flying and that there were approximately ten paragliders airborne at the site. Pilot B launched at 13:24 in conditions they described as an easterly or east southeasterly breeze of 12-15km/h.

Pilots B and C both stated that they heard a radio transmission (or part of a transmission) from Pilot A when they were airborne. The transmission reported by Pilot B (paraphrasing) was "All pilots flying Carrock, I got quite a bit of sink on my way across, but now at Bannerdale Crag and it's working well." Pilot B stated that this was the last radio transmission heard from Pilot A.

Witnesses E, F and G were walking at Sharp Edge and Foule Crag. Witness G reported that when they were on the Sharp Edge footpath at 13:55, they noticed a paraglider in the air which appeared to be flying normally. Witness E, from their position on Sharp Edge, observed the paraglider flying towards them and stated it was "very close to the hill". They took a photo of the paraglider at 13:54 and noted this was approximately three minutes before the aircraft impacted the hillside. Witness F reported that they were on the Foule Crag footpath when the paraglider was 30-40 ft away. They noted the paraglider was suddenly elevated 30-40 ft and observed the pilot "pulling on handles" as if they were "struggling to control it [*the paraglider*]." They reported the paraglider then collapsed and descended rapidly to the ground.

Pilot A and their paraglider had impacted the northern face of Foule Crag / Sharp Edge. Their paraglider came to rest on an area of near vertical rockface close to the ridge top. The Emergency Services were summoned and attended; however, Pilot A died from their injuries. The equipment was recovered, and it was noted that Pilot A's helmet was found 100m away from the impact site.

The flying area is shown in Fig.1

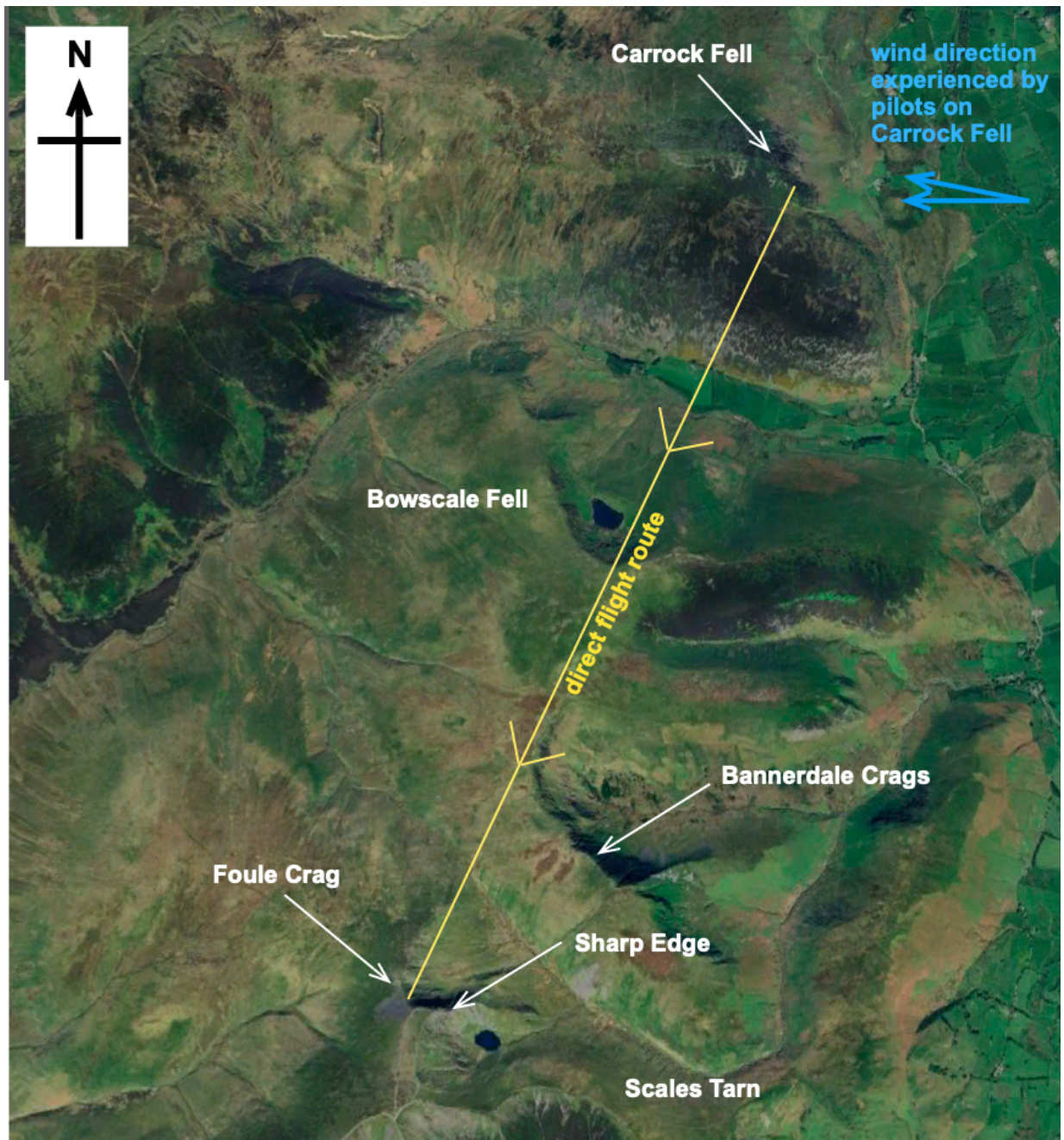


Fig. 1: The flying area and straight line flight route south southwest from Carrock Fell to Foule Crag (note: the actual track taken by Pilot A would vary substantially from this straight line, to exploit sources of lift). Background image: Google Maps 2024.

3.0 Focus.

Based on the information available, the Investigation considered the flying area and local flying conditions; Pilot A's experience and currency; their equipment; and the part of Pilot A's flight immediately prior to their impact with the ground.

3.1 The flying area and local conditions.

The conditions stated on the Met Office Aftercast for the incident day were as follows:

“The afternoon of the 25th of February 2024, saw an area of low pressure and associated frontal systems affecting the southwest of the UK. A light easterly flow was affecting the area of interest, with the strongest winds over Shap Summit recorded as 11 knots. There was a risk of some showers developing, however as can be seen from the radar images” ... “no precipitation was observed over the area of interest. Given the proximity of the Keswick weather station to Blencartha, it is reasonable to expect that the conditions would have been similar with light easterly winds.”

(Note 11 knots = 20km/h).

The Regional Atmospheric Soaring Prediction (RASP) historical data forecasted a light easterly or east-southeasterly airflow for the incident day, with a thermic updraft velocity of 225-275 ft/min.

The forecasts and the pilots' reports from the day are similar. Pilot B reported smooth flying conditions around Carrock Fell, with “easy thermals occasionally coming through”. They noted the wind gradually increased over the course of the afternoon to slightly more than 20km/h at summit height. They further noted that there was “no evidence of gusts or significant sudden changes in direction or strength.”

There was evidently a high cloudbase and thermic conditions present that allowed Pilot A to make a significant climb away from the launch area to, or near to, cloudbase.

The incident area is a bowl at the western end of a steep sided valley running on an approximate northwest – southeast axis, climbing from the the southwestern end. The northerly slope of the valley (on the opposite side to Sharp Edge and Foule Crag) climbs steeply to a summit of approximately 2200 ft above mean sea level. Further to the north are the northeasterly facing Bannerdale Crags and Bannerdale valley.

Foule Crag is a northeasterly facing bowl of rock and scree which climbs from the valley with increasing steepness towards its ridge-top. Its surface is bare rock with areas of loose scree and grass. Its point of greatest elevation is a peak at 2770 ft amsl, from which it descends along Sharp Edge. The bowl at this point faces north to north-northwest and is precipitously steep. Sharp Edge is at the eastern periphery of the bowl. It is a narrow ridge of rock. On its southern side the ground falls steeply away to Scales Tarn. It is evident that snow was on areas of higher ground, the snow line noted by Witness K to be around 2400 feet amsl.

The area is shown on the Ordnance Survey map (Fig. 2) and the impact site is shown on Fig. 3.

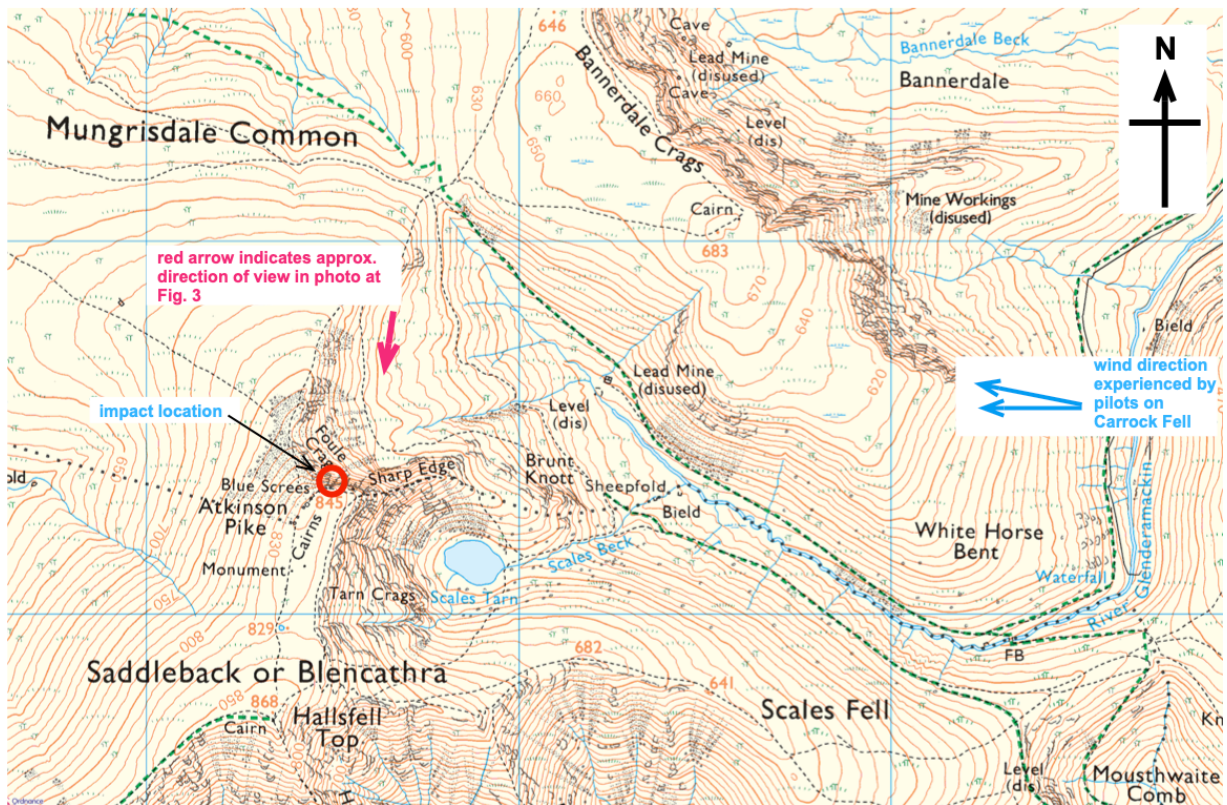


Fig 2. Ordnance Survey map illustrating main ground features and Pilot A's impact site.

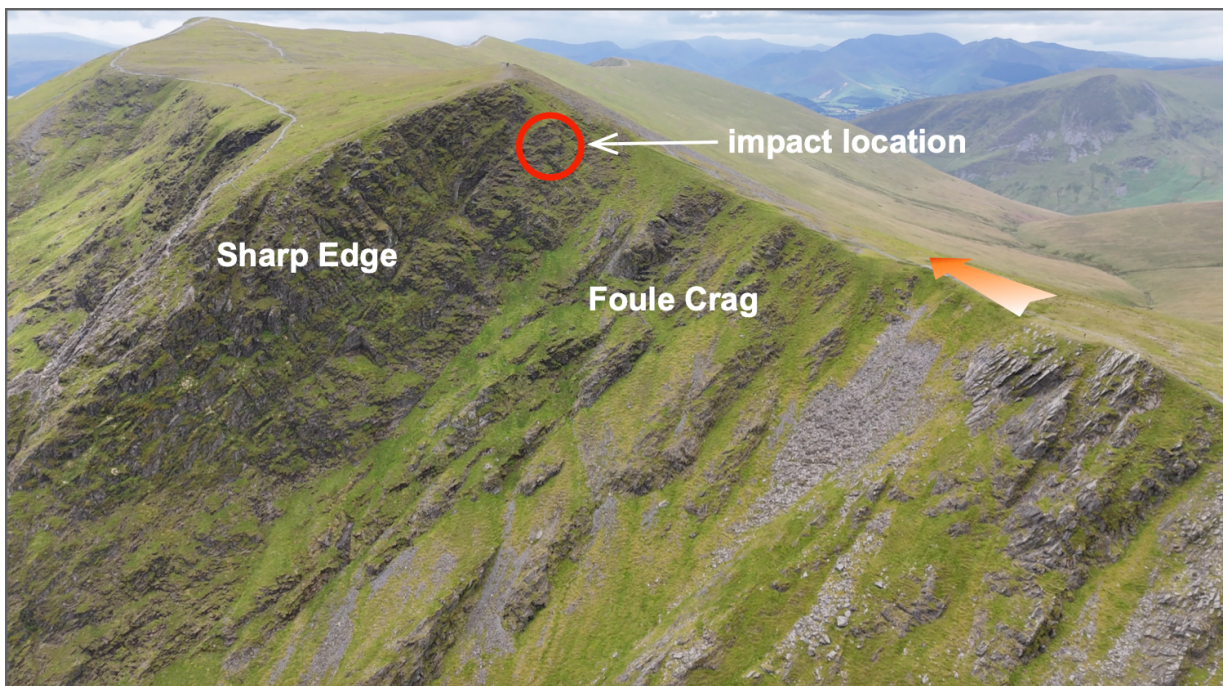


Fig 3. View looking south-southwest into the bowl, illustrating approximate impact location and direction of flight leading up to incident (shown by orange arrow). Photo obtained by drone.

3.1 Pilot A's experience and currency.

Pilot A began paragliding in 1992. At the time of the incident, they held a BHPA "Pilot" rating (obtained in April 1994) and a BHPA licence to fly a tandem paraglider in the "Hill" environment. They had previously held a BHPA Paragliding Instructor licence in the Hill environment which had been converted to an Air Experience Instructor (Dual) licence.

In respect of other aircraft, Pilot A held a BHPA rating to fly a foot-launched powered hang glider.

In 2010 they obtained a British Gliding Association (BGA) rating for sailplane flying (solo) and subsequently obtained a cross-country endorsement. In 2017 Pilot A obtained a BGA sailplane basic instructor qualification. Their logs record a total of 384 hours sailplane flying acquired in nine years.

Pilot A meticulously maintained logbooks of their flying and recorded nearly 2,500 hours solo and tandem paragliding flight acquired in the UK and France.

Witness K provided a background statement noting that Pilot A began working as a Trainee Instructor in 1997. They summarised Pilot A as:

“...a very active pilot, flying every opportunity the weather allowed. Hugely experienced in all pilot skills and had taught these for many years as an instructor and coach. Very experienced tandem pilot having flown hundreds of flights including passengers with disability through the Flyability charity. Regularly flying cross country flights around the Lake District.”

Witness K stated that approximately 10 years ago Pilot A stepped down from an EN C class paraglider to an EN B (for an explanation of EN 926-2 Paraglider flight safety characteristics classes, see footnote¹). Pilot A obtained their current paraglider, a Gin Evora, in February 2023 and flew it extensively, logging over 160 hours’ airtime. Their logbook records that since the start of 2024 they had undertaken eight flights on the Evora in a range of conditions. Their last flight before the incident flight was on 24th February 2024. The Investigation determined that Pilot A was in current practice on their paraglider.

The Investigation determined that Pilot A was a highly experienced pilot with a significant number of logged hours on paragliders and other aircraft. The flight narratives from their paraglider logbooks demonstrate that they were used to flying in a variety of conditions.

3.2 Pilot A’s equipment.

The Gin Evora (size small) is certified to EN 926-2 as Class B for the weight range 75-95 kg (total flying weight). The manufacturer describes its pilot target group as “for all pilots, including training pilots of all levels. For thermal flyers and cross-country pilots who have regular flying practice (a minimum of 20-30 hours airtime per year) and advanced flying knowledge.”²

Based on a desktop calculation, Pilot A’s total weight in flight was calculated at 75.9 kg (pilot 64kg, wing 4.7kg, harness 2.2kg, and an allowance of 5kg for ancillary equipment). This is within the maximum total weight in flight of 95kg for the Evora paraglider (Small) to achieve an EN 926-2 (EN standard for Paraglider Flight Safety Characteristics) “B” class.

The paraglider was inspected by an independent expert who produced a report. As the left riser had been cut, only the right-hand side lines could be measured. The expert determined that the right-hand side lines were within the manufacturer’s specification.

The paraglider was significantly damaged with numerous tears including a large tear encompassing both top and bottom wing surfaces from the leading edge down at least half of the wing’s chord. The left-hand side lines had been cut, evidently in the rescue or recovery of the equipment.

Small areas of additional stitching at the wing tips were reported, having evidently been hand stitched. The Investigation determined that this was a modification made after manufacture, possibly to assist with the removal of debris that may enter the wing. Of itself, it would have negligible effect on flying characteristics and the Investigation ruled it out as a contributory factor

¹ For background information on EN 926-2 standard paraglider classes, see:
https://www.bhpa.co.uk/documents/index.php?doc=En_PG_Classes.pdf

² <https://www.gingliders.com/pdf/pg-evora-manual-en.pdf> at page 35 (accessed August 9th, 2024).

in the incident. Excluding areas of damage, the expert report stated the condition of the paraglider (its risers, lines and canopy) to be very good.

The Skywalk Breeze harness was visually inspected. Structural parts of the harness had been cut. The cuts appeared mechanical and were evidently made in the rescue or recovery of the equipment. No emergency parachute was installed, and the parachute container had been closed by a piece of plastic wire. The harness contained various ancillary flying items and personal effects. A Renschler CoMo Av electronic flight instrument was carried by Pilot A. The instrument had no GPS facility and a tracklog was therefore not available to the Investigation. The helmet was not available for inspection.

The Investigation determined from the evidence available that the flying equipment was of suitable type and airworthy prior to the incident. The equipment was considered not to be a factor in the incident, although it is of note that Pilot A had not installed an emergency parachute and was close to the bottom of the certified weight range for the paraglider.

3.4 The incident.

The Investigation considered the portion of the flight immediately prior to the impact.

The Investigation determined that Pilot A had soared Bowscale and Bannerdale Craggs, and used thermic lift to climb above ridge height and track over the back of the ridges in the general direction of Threlkeld, with a crosswind component to their track.

Pilot A had evidently been soaring the Foule Crag bowl for a number of minutes, flying beats along the ridge line before the incident. In order to stay airborne and maintain height, Pilot A had to fly close into the ridge to exploit the light lift. The Investigation considered that the wind strength was not enough to provide consistent dynamic lift for height gains well above ridge top, however the meteorological conditions would give rise to thermals. It is evident from pilots' tracklogs at Carrock Fell that the thermic drift was from the east or east-southeast, with climbs of up to 2.5 metres per second. The Investigation postulated that Pilot A was waiting for a thermal providing a stronger source of lift that would enable them to climb out from Foule Crag and complete the last portion of the flight with a glide into Threlkeld to recover their car.

Witness E provided a photograph and a two second video clip of Pilot A soaring the edge of the Crag, and stated that this was taken approximately three minutes before the incident. This photograph is included at Fig. 4.



Fig.4: Pilot A flying towards Sharp Edge (the rocks in the foreground).

The Investigation determined from Witness F's evidence that Pilot A had not made a substantial

height gain in the period between the photo and the incident, and was therefore between 50 and 150ft feet above the ridgetop when they experienced a departure from normal flight.

Witnesses E, F and G all witnessed the departure from normal flight. Witness F described the paraglider as being very low, flying along the Foule Crag ridge in the direction of Sharp Edge, and being close enough to the ground that they believed the paraglider would land. They then described the paraglider being elevated 30-40ft before Pilot A swung under the paraglider and it collapsed before descending to the ground. The incident was described as “uncontrolled flips and rotations” by Witness E. Witness G stated that the paraglider “went sideways into the rock and crashed”. The witnesses did not see the point of impact as this was below the ridge top and out of their lines of view. Pilot A clearly impacted the rockface with significant force given the injuries they sustained; a force strong enough to dislodge Pilot A’s helmet.

It is evident that the general direction of airflow over the area had some southerly component, and Pilot A flew close to the ground in an area that would experience rolling turbulence along the hillside in the lee of Sharp Edge, in the prevailing wind direction evident on the day.

The Investigation determined from the available evidence that Pilot A’s paraglider experienced a departure from normal flight in turbulent air as they approached an area of the Foule Crag bowl, which, in the prevailing wind direction, was in the lee of Sharp Edge. From the movements of the paraglider described by Witnesses E, F, and G, the paraglider experienced an asymmetric collapse, which brought about a high-speed rotation. Although Pilot A was seen to make control inputs in an attempt to recover to normal flight, they were too close to the ground to be able to bring about a recovery before the paraglider turned Pilot A towards the hillside, where they impacted with significant force.

The exact height that Pilot A had above the ground when they experienced a departure from normal flight cannot be determined with any accuracy as their electronic flight instrument did not have the facility to record this type of flight data. It is uncertain whether Pilot A could have successfully deployed an emergency parachute, even if one had been fitted. It is suggested that Pilot A was so close to the ground that successful deployment may not have been possible.

4.0 Findings

The Investigation determined from the available evidence that Pilot A encountered turbulent air in the lee of Sharp Edge, which led to a collapse of their paraglider from which they were unable to recover before impacting the ground and sustaining fatal injuries.

5.0 Recommendations.

None.