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BHPA Incident Report: GBR-2017-5043

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.

INCIDENT

Aircraft Type:	Paraglider: Gin Atlas Medium; harness: Gin Gingo 2 harness fitted with a Gin Yeti 40 emergency parachute; Skytraxx 2.0 Plus electronic flight instrument. Smith Vantage helmet.
Certification:	Paraglider certification EN-B.
Location:	Punta di Montemaggiore, Italy (the "Stol" flying site).
Date and Time:	13th August 2017, 13:57 local time (UTC + 2h).
Type of Flight:	Thermic / cross country flight.
Persons Involved:	Pilot A
Injuries:	Cause of death listed as multiple injuries.
Nature of Damage:	Minor damage to the glider.
Pilot's Rating/Licence:	BHPA Paragliding Club Pilot (Hill) rating.
Pilot's Age:	55
Pilot's Experience:	No logbook available. Total flying hours since gaining Club Pilot between 25 to 30 hours.
Information Source:	Track log information from Pilot A's electronic flight instrument; Pilot A's equipment inspection; witness statements from Pilot B, Pilot C and Pilot D.

1.0 Synopsis.

Pilot A was making a guided cross-country flight with two other pilots, one acting as a guide (Pilot C). Above the ridge near the Italian / Slovenian border, Pilot A's wing was seen to experience a number of asymmetric deflations before entering a spiral dive. Pilot A impacted the hillside and Pilot C attempted unsuccessfully to contact him by radio. Pilot C landed and called the emergency services. Pilot A was attended to by the local mountain rescue team, who established that he had fatal injuries.

2.0 History of the flight.

Pilots A and B were on a guided paragliding trip in Slovenia. Pilot C was the flight guide, and the trip was organised by Pilot D. Pilots C and D are BHPA Senior Instructors.

On the morning of the incident flight, Pilots A and B received a flight briefing from Pilot C. The flight plan was to fly along the south face of the Stol ridge in a westerly direction, cross the Italian border, then fly back over the border along the ridge in an easterly direction, to the landing field at Kobarid.

Conditions were noted on the take-off as being a light southwesterly airflow, with building thermic activity. At approximately 11:30am, Pilots A and B launched to join Pilot C who was already airborne. The three pilots flew in a westerly direction along the ridge, soaring in thermodynamic lift, and crossed the border into Italy at approximately midday. Pilot C spoke to both pilots on the radio and ascertained that they wished to extend the flight by continuing along the ridge to where it ended above the town of Gemona del Friuli. This involved crossing a four-kilometre gap in the ridge at the village of Pradielis, that required the pilots to gain sufficient height in a thermal until they were able to glide to where the ridge continued.

The pilots reached the western end of the ridge above Gemona about 1 hour 50 minutes after takeoff, and turned eastwards to head back to Slovenia and the landing field. This was to involve re-crossing the gap, then gliding along the ridge for approximately 22 kilometres to the landing field at Kobarid.

At the Punta di Montemaggiore section of the ridge, just before the border with Slovenia, Pilot A crossed the large spur leading to the Punta di Montemaggiore summit, and followed the contour of the mountainside by making a left turn. He was seen by Pilot B and Pilot C to experience a number of asymmetric collapses, and the paraglider turned steeply into a spiral dive to the right hand side. Pilot C prompted Pilot A several times on the radio to throw his emergency parachute, but no deployment was made. Pilot A's paraglider made a number of revolutions in a nose-down attitude, before Pilot A impacted the hillside on the leeside of the spur, approximately 75m below the main ridgeline (on the windward side), at 13:57 local time.

Pilot C judged the mountainside too steep to safely land to provide assistance. He told Pilot B over the radio to fly to a suitable landing area. Pilot C then landed in the village of Montemaggiore at the foot of the mountainside, and called the emergency services. The Italian emergency services reached Pilot A and established there were no signs of life. His flying equipment was recovered by the Mountain Rescue team, and was handed over to Pilots C and D.

3.0 Focus.

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

3.1 Pilot A's experience and currency.

Pilot A was a BHPA Club Pilot (Novice) paraglider pilot. He had informed Pilot D that he had accumulated between 25 to 30 hours flying time since achieving his Club Pilot rating in 2015. No logbook was available to the Investigation, but it is apparent that Pilot A had flown in the UK, Spain and Bulgaria, and on a previous trip to Slovenia in 2015. During the week leading up to the incident, Pilot A made eight flights around the Stol flying area, some flights in thermic or ridge soaring conditions. He last flew the day before the incident.

The Investigation determined that Pilot A was suitably current. Given his apparent level of experience, the nature and duration of the planned flight, and the flying environment and the conditions, the use of a guide was appropriate.

3.2 Pilot A's equipment.

The Gin Atlas used by Pilot A is an EN-B class paraglider described by the manufacturer as being suitable for the "less experienced pilot". Pilot A's total weight in flight was calculated to be within the EN certified maximum (110kg). The Investigation considered the wing type, harness and emergency parachute to be suitable for a pilot of Pilot A's experience.

The wing was examined by a paraglider service centre which undertook a general condition inspection, and measured Pilot A's wing against the manufacturer's line length specification. The wing was reported to be in generally good condition, apart from minor damage that may have occurred in the impact or subsequent recovery of the equipment from the mountainside.

The suspension lines were found to be within manufacturer's specification. The service centre reported that the control lines were shortened by 19mm and 33mm. Although shortening of control lines may affect a glider's recovery behaviour, the Investigation did not consider the extent of shortening in this instance to be a major contributory factor.

The Investigation considered the type of wing, harness and emergency parachute used by Pilot A not to be contributory factors in the incident.

Pilots C and D performed and filmed a post-incident static deployment test of Pilot A's emergency parachute inner bag from its outer container. The Investigation determined that within the limits of this static deployment test, the supplied media illustrated an emergency parachute deployment system that functioned correctly.

3.3 The flying area and local conditions.

The flying site is a mountainous ridge of grass slopes, forested areas and rock faces. Its crest runs on an approximate east/west axis, and is about 32 kilometres long. The area of the ridge on which the incident occurred is a south-southeasterly facing bowl comprising of rock gullies below a steep grass slope leading to the crest. The peak of Punta di Montemaggiore is at the western part of the bowl, at an elevation of 1614m above sea level. A promontory spur runs on an approximate north/south line, up the western slope of the bowl to the peak.

The witness statements from Pilots C and D describe the conditions at the launch area on the incident day as a light south-southwesterly wind, with thermic activity building during the course of the day. During the flight the conditions were evidently suitable for sustained thermo-dynamic soaring flight, although thermic lift appeared sporadic and light. Pilot C stated that the westerly-heading part of the flight had an into-wind component. This is supported by the evaluation of data from Pilot A's Flymaster flight instrument, showing a faster return leg.

3.4 The incident.

The Investigation considered Pilot A's actions that led up to the impact.

It is evident from analysis of data on Pilot A's flight computer that his track on the return leg of the flight around the Punta di Montemaggiore peak had a downwind component. His groundspeed around the spur was approximately 15km/h higher than his groundspeed on the outgoing leg when at the same location. Pilot A's flight path was close to the mountainside, and his height above the ridge at the Punta di Montemaggiore summit was less than 100m.

As Pilot A crossed the spur he made a left turn to follow the contour of the mountainside, increasing the downwind component of his track and placing him in the lee of the spur. On the balance of probabilities, Pilot A encountered turbulent air in the lee of the spur, that led to the asymmetric collapses. He was unable to respond effectively to counteract the developing spiral dive, or throw his emergency parachute, before impacting the ground.

In their statements, Pilot B and Pilot C did not report that they experienced turbulence when they

crossed the Montemaggiore spur. Pilot B estimated that he was between 100 and 200 metres above the ridgeline, and higher than Pilot A. Pilot C stated that he was further out from the ridge than Pilot A. They both therefore had sufficient distance from the mountainside to avoid turbulent air in the lee of the spur.

4.0 Findings

The Investigation determined from the available evidence that Pilot A encountered turbulent air in the lee of a large spur on the ridge. This caused an asymmetric collapse of his paraglider from which he was unable to recover, before impacting the ground and sustaining fatal injuries.

5.0 Recommendations.

The BHPA shall bring to the attention of its members through Skywings magazine the Safety Notice of 17th September 2002, entitled “Paraglider collapses at low level.”

Further, the BHPA shall remind its members through Skywings magazine that if a wing collapse at 300ft (or less) above the ground provokes an uncontrollable rotation or a high rate of descent; or if descending through 300ft above the ground in an uncontrollable rotation, the pilot should deploy their emergency parachute without hesitation.