British Hang Gliding and Paragliding Association

REPORT

Investigation of a paragliding incident
which occurred at Annecy, France,
on 20th May 2013
in which the pilot suffered fatal injuries.

Introduction

On 20th May 2013 the British Hang Gliding and Paragliding Association (BHPA) received reports of an air incident at Annecy in France that had resulted in the death of the pilot. The BHPA tasked Mr David Thompson, BHPA Senior Technical Officer, to investigate the incident and submit a report to the Flying and Safety Committee (FSC) of the BHPA for ratification.

BHPA investigation serial number: IR 13/054

Summary

On the 20th May 2013 a group of paraglider pilots on a guided trip met at Plan Fait, Annecy. Shortly after taking off on his second flight of the day, at approximately 12.50pm a CP rated pilot, flying an Ozone Mojo 3 paraglider, lost control of his glider and crashed into the trees. He later died from his injuries. The investigation concluded that the incident occurred as a result of the pilot losing control of his glider while flying in turbulent and thermic conditions. Failure to fly actively and a lack of currency were considered to be contributory factors.

This document is confidential until ratified.

Date ratified by the BHPA Flying and Safety Committee: 19th July 2015

THE STRUCTURE OF THE REPORT

The structure of this report conforms to that recommended in the BHPA Technical Manual and is intended to follow the principles pertaining to AAIB reports. It is divided into five sections.

Section 1 - Factual information

Section 2 - Analysis

Section 3 - Conclusions

Section 4 - Safety Recommendations

SECTION 1 - FACTUAL INFORMATION

1.1 History of the flight

1.11 'Pilot A' and his daughter were on a guided paragliding trip to Annecy organised by a BHPA paragliding school based in Pembrokeshire. On the morning of the 20th May 2013 the group, consisting of eight clients and four staff, arrived at the Plan Fait take off in Annecy. After a group site briefing by the CFI, 'Pilot A' had a successful top to bottom flight in overcast and smooth conditions. This was his first flight of the trip and his first since September 2012. After all the clients had landed the group were taken back to the same take off to continue their flights. At approximately 12pm the group were informed via radio by the school CFI who was flying tandem at the time, that the conditions had started to get bumpy. The CFI stated that he told the group that conditions had started to get thermic and that they should consider whether they wished to fly at that point in the day.

1.12 At approximately 12.50pm 'Pilot A' took off. Within seconds of taking off 'Pilot A' encountered turbulent, thermic air causing his glider to pitch back and forth. 'Pilot A' did not counter the pitching glider and the glider sustained an asymmetric collapse. The glider self-recovered but continued to pitch as the pilot passed through more turbulent and thermic air. The glider sustained a second asymmetric collapse, which resulted in a small cravat. This caused the glider to turn and dive as it recovered again. At this point 'Pilot A' released the controls and pulled out his emergency parachute. 'Pilot A' crashed into the top of a large pine tree before he was able to deploy his parachute, which was in his hand as he crashed.

1.13 'Pilot A' was still conscious when he was initially located only three and a half minutes after the crash. He said that he was ok and uninjured and was told to secure himself to the tree to avoid falling out. The emergency services were called and arrived quickly. 'Pilot A' lost consciousness after about fifteen minutes while up the tree. Efforts to revive him were unsuccessful.

1.2 Injuries to persons

Injuries	Crew	Passengers	Others
Fatal	1	-	-
Serious	-	-	-
Minor / None	-	-	-

1.3 Damage to the aircraft

The glider sustained minor damage consistent with colliding with a tree at speed.

1.4 Personnel information

The pilot was a 65 year old male. He was a current member of the BHPA and held a Club Pilot (CP) (novice) rating. He had held this rating for approximately three years during which time he had gained 15 hours airtime. Examination of the pilot's student training record book showed he had trained with a BHPA school near Brighton and had completed all the appropriate exercises over thirteen training days in a period spanning fourteen months. At the time of the incident the pilot was on the first day of an organised, guided paragliding trip ran by a BHPA school based in Pembrokeshire. Prior to this the pilot had not flown since the previous September while on a similar guided trip to Annecy organised by the same Pembrokeshire school.

1.5 Aircraft information

The paraglider was an Ozone Mojo 3 (EN A) size medium. It was not available for examination though it was thought to be in very good condition. It was purchased new by the pilot on completion of his CP course in May 2010. The glider was of a size and type suitable for this level of pilot.

The harness (type unknown) was fitted with a parachute (type unknown).

1.6 Meteorological information

The Meteo France forecast for the general area was showing 20 – 30km/h south westerly at 2000m and 40km/h at 4000m. In the Annecy valley there was a northerly valley wind. At take off, at the time of the incident, the wind was in a west north-westerly direction. The general conditions at take off were overcast in the morning, gradually brightening. At the time of the incident there was approximately 2 to 3 eighths cumulus cloud cover with large area of clear sky. At the time of the incident (approximately 12.50pm local time) a witness stated that it was very thermic and turbulent in the area around take off, going "from smooth to quite punchy, very quickly."

1.7 Aids to navigation

There was no GPS or barometric data collected.

1.8 Communications

The Pilot had a radio but there is no evidence to suggest he was using it at the time of the incident.

1.9 Flying Site

The Plan Fait take off at Annecy is situated approximately halfway along the eastern side of Lake Annecy, due east of the small village of Perroix. Take off elevation is approximately 1200m. The area around the take off is surrounded by mature pine forest. The take off faces in a westerly direction though the site can be flown in most prevailing wind directions as the take off is influenced by the valley wind, usually resulting in a breeze roughly perpendicular to the slope. The site is extremely popular with pilots from all over the world, and is one of the busiest in France. It is used by both qualified pilots and by pilots under training.

1.10 Flight recorders

The pilot was wearing a helmet mounted Go Pro camera. The flight footage was obtained from the camera and is discussed in the analysis section of the report.

1.11 Medical and pathological information

Cause of death was given as internal injuries.

1.12 Organisational and management information

The CFI of the school providing the guiding stated that the guiding service included site and weather briefings and transfers and retrieves. There was no instructional element to the guiding service provided.

SECTION 2 – ANALYSIS

2.1 The Investigation considered the training given to the pilot. 'Pilot A' began his training with Sussex Hang Gliding and Paragliding school in November 2008. He completed six days training on the BHPA Elementary Pilot course between November 2008 and September 2009. He then continued immediately on the BHPA CP course where he completed a further seven training days between September 2009 and April 2010. BHPA records show that 'Pilot A' was issued with a CP (hill) rating in May 2010. All entries in 'Pilot A's training record book were properly filled in and signed by both instructor and pilot. 'Pilot A' took a total of seventeen months to complete his training.

While this would be considered longer than average, it is certainly not uncommon given the British weather. The investigation did not consider 'Pilot A's training to be a factor in this incident.

2.2 The Investigation considered the currency of the pilot. 'Pilot A' had gained approximately 15 hours airtime in the three years between gaining his CP rating and the time of the incident, giving an average of approx. 5 hours per year. This would be considered very low, with the British average being approx. 20-25 hours per year. Added to this is the fact that 'Pilot A' had not flown between September 2012 and May 2013, a period of just over eight months. With this low level of experience coupled with the eight-month period of inactivity it is questionable whether 'Pilot A' was still at the standard of BHPA Club Pilot. This would go some way to explaining the actions of 'Pilot A' discussed in 2.4 below. The Investigation considered the currency of 'Pilot A' to have been a significant factor in this incident

2.31 The Investigation considered the weather conditions. The Meteo for the day was forecasting 40kph southwesterly winds at 4000m and 20-30kph winds at 2000m. In the morning this wind direction and strength would have had little impact on the pilots flying from Plan Fait as the altitude at take off (1200m) meant that the valley was relatively calm with the stronger winds passing overhead. The early cloud cover dissipated throughout the morning giving rise to the northerly valley breeze and to more thermic air causing the low level air to rise and create the potential for it to mix with the southwesterly prevailing wind. The area where the prevailing wind and the valley breeze with thermic air, known as the shear layer, would have been turbulent due to the mixing of the opposing air currents.

2.32 Plan Fait is a known thermic site. Once the sun had broken through the early cloud cover the air became quite thermic in a short space of time. The thermals were described as strong and punchy by witnesses. Evidence from witnesses and footage from the video recording show clearly that this was the case. It is impossible to say whether the turbulent conditions experienced around the launch area were due to turbulence caused by the upper prevailing wind mixing with the valley wind, or simply due to the thermic nature of the site in spring conditions, or perhaps a combination of these factors. The Investigation considers the thermic and turbulent nature of the air in the immediate area, coupled with the currency and experience level of the pilot, to have been a significant factor in this incident. It is worth noting that pilots flew all day from Plan Fait on the day of the incident, though witnesses stated there were a number of emergency parachute deployments.

2.4 The Investigation considered the actions of the pilot during the flight as highlighted on the GoPro camera footage from 'Pilot A's helmet cam and from a series of still photos taken by a photographer standing at launch. Both the video and still footage is of a high resolution and quality. 'Pilot A' took off at approximately 12.55pm local time. He immediately flew into rising (indicated by the noise of 'Pilot A's vario), thermic air. The glider pitches back and then forward as 'Pilot A' flies into and then out of the thermal. Stopping the footage at critical moments shows that 'Pilot A' was not trying to prevent the glider from pitching back and forth, in other words he was not "flying actively". The footage shows the glider pitched forward at an angle of approximately 45 to 50 degrees from vertical with no deformation of the trailing edge to indicate that the pilot had applied brakes to dampen the dive. After 26 seconds of flight the glider sustains its first asymmetric collapse. This occurs on the left side and is approximately 50% of the wing. The glider recovers quickly as it dives forward to approximately 55-60 degrees from vertical while turning through 90-100 degrees. The pilot pendulums underneath but then the glider drops back before immediately pitching forward again. This causes a further asymmetric collapse on the left side of the wing resulting in the glider turning quickly and diving. There is only ten seconds between the start of the initial collapse and the start of the second collapse. The wing rotates approximately 300 degrees whilst reinflating and diving forward again taking a further four to five seconds. At no time during this sequence does the pilot make any move to counter the pitching of the glider or to counter the turns caused by either of the collapses. The glider is now diving towards the trees, parallel to the ridge when 'Pilot A' releases the controls and attempts to deploy his parachute. In a further five seconds the 'Pilot A' collides with the top of a large pine tree having failed to deploy the chute. During the final five to six seconds prior to hitting the tree it would have been possible to apply left brake and fly away from the trees.

Unfortunately the pilot was focussing on deploying his chute and had let go of both of the controls. It is the opinion of the Investigation that at any point in the flight, had 'Pilot A' been flying actively, he could probably have prevented the collapses from occurring in the first place. At the very least, countering the turns would have prevented the impact with the tree. The Investigation finds that the failure of the pilot to fly in an active manner was a significant factor in this incident.

SECTION 3 – CONCLUSIONS

The Investigation concluded that the incident occurred as a result of the pilot losing control of his glider while flying in turbulent and thermic conditions. Failure to fly actively and a lack of currency were considered to be contributory factors.

SECTION 4 - SAFETY RECOMMENDATIONS

The Investigation makes no recommendations.