ACCIDENT

Aircraft Type and Registration:	Piper PA-38-112 Tomahawk, G-BMVL	
No & Type of Engines:	1 Lycoming O-235-L2C Piston Engine	
Year of Manufacture:	1979 (Serial no: 38-79A0033)	
Date & Time (UTC):	12 May 2018 at 1215 hrs	
Location:	Caernarfon Airport, Gwynedd, Wales	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - 1 (Minor)	Passengers - 1 (Minor)
Nature of Damage:	Extensive	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	46 years	
Commander's Flying Experience:	199 hours (of which 57 were on type) Last 90 days - 15 hours Last 28 days - 8 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot, recorded CCTV and further enquiries by the AAIB	

Synopsis

The pilot in command, who was not a flight instructor, occupied the right seat, while the occupant of the left seat was an unqualified pilot[1], who attempted to land the aircraft at Caernarfon Airport. During the final stage of the approach, the pilot in command took control because the aircraft was going to land too far along the runway, and he attempted to go around, however the flaps remained in the landing configuration. With a nose-up attitude, the aircraft deviated to the left of the runway, stalled and hit the ground, before crossing a public road and coming to rest inverted.

History of the flight

The pilot in the right seat was not a flight instructor, while the occupant of the left seat was a senior work colleague and also a student pilot, who was not qualified to fly without supervision from a flight instructor. Although the unqualified pilot had received no instruction on this aircraft type, he conducted the takeoff from Blackpool Airport and flew the aircraft to Caernarfon, with the pilot in command monitoring his actions and making radio calls.

Footnote

[1] The left seat occupant was a student pilot who was in the process of learning to fly on another aircraft type and had logged 26 hours flying while under instruction.

Following an overhead join for Runway 25 at Caernarfon, the unqualified pilot manoeuvred the aircraft into the circuit, in good visibility and with an estimated crosswind from the left of 5 kt. Once the aircraft was established on final approach, the pilot in command suggested that they were too high and the unqualified pilot acknowledged this, but did not subsequently achieve the optimum approach path.

The pilot in command stated that shortly before touchdown he intervened on the throttle and selected idle power, before "following-through" on the flying controls. He then elected to take over control of the aircraft and applied full power, while informing the unqualified pilot they would go around, but he did not move the flap lever from the landing position. CCTV imagery showed that the aircraft's mainwheels made ground contact approximately one third of the way along the runway but the aircraft bounced. It then diverged to the left of the centreline, bouncing again twice, before flying over the left edge of the runway in a nose-up and left wing-low attitude.

The pilot in command stated that he realised the aircraft was not gaining altitude and that he saw a hangar ahead. He believed that he turned the aircraft away from the hangar before it descended and hit the airfield perimeter fence. The CCTV imagery indicated that the aircraft turned left as it departed the runway and it climbed to approximately 20 ft above the ground, before adopting a wings-level, nose-up attitude, and overflying a parallel taxiway. The aircraft then descended towards the ground and was obscured from the CCTV as it passed close to the western edge of two hangars.

The aircraft appears to have flown between the hangars and a mast, bounced on the grass and then struck the ground by the airfield perimeter fence. It then passed through the fence line, travelled across a public road and hit another fence on the southern side of the road (Figure 1). The aircraft then inverted and stopped abruptly, near a farm building, with its nose pointing back towards the airfield (Figure 2).

The unqualified pilot saw fuel leaking from the left wing and later estimated that it took him 20 seconds to undo his seat belt and to escape through an open window. The pilot in command made the engine and electric controls safe but was unable to undo his seatbelt, so the unqualified pilot returned to assist him. Once they were both clear of the aircraft, they received attention from paramedics, who arrived quickly from the locally-based air ambulance unit.

After the accident, the unqualified pilot assessed that the aircraft had been both too high and too fast and that, in retrospect, an early go-around decision would have been appropriate.

Pilot's assessment

In hindsight, the pilot in command realised that his decision to allow his colleague to fly the aircraft was probably influenced, sub-consciously, by the fact that this person was a senior work colleague. He was aware that this person was not a qualified pilot, so should not have manipulated the controls without being supervised by a flight instructor.

Other safety lessons highlighted by the pilot in command, were that a go-around should be initiated if it looks unlikely that touchdown will be made in the first third of the runway, and the vital need to make an appropriate flap selection when going around. The pilot in command noted that, although he was in the habit of moving the flap lever during touch-and-go landings, his actions on this occasion were affected by being in an unexpected, stressful situation and, because full flap was still set, he subsequently lost control of the aircraft.

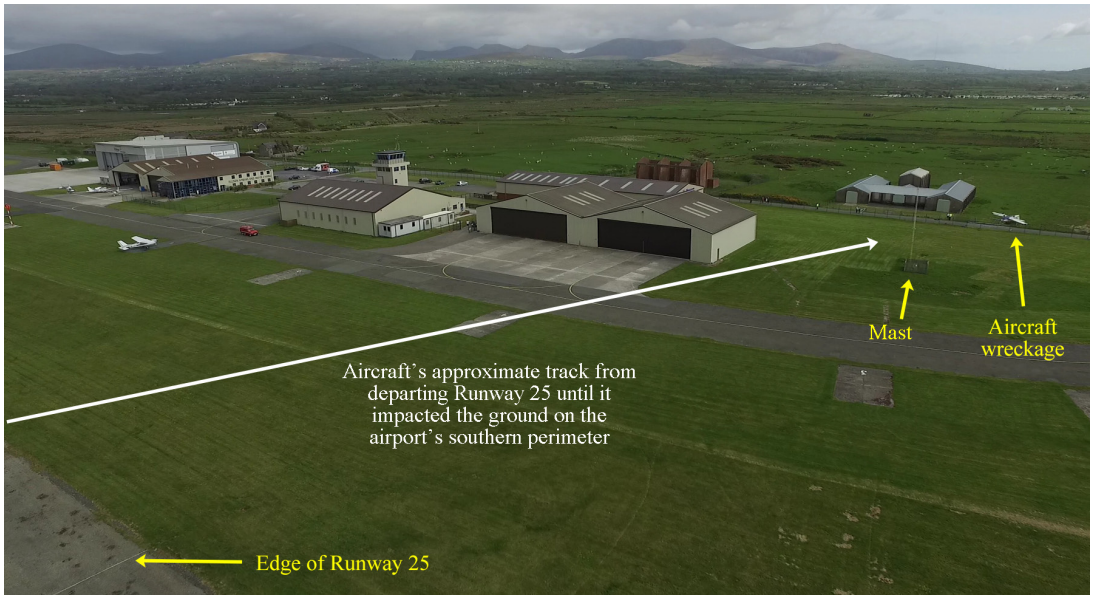

Figure 1

View of Caernarfon Airport from drone positioned above Runway 25, with camera orientated towards the southeast
(Picture courtesy of North Wales Police)

Figure 2

View of accident site from police drone
(Picture courtesy of North Wales Police)