**ACCIDENT** 

Aircraft Type and Registration: Extra 400, D-EXKG

**No & Type of Engines:** 1 Teledyne Continental TSIOL-550-C piston

engine

**Year of Manufacture:** 2003 (Serial no: 26)

**Date & Time (UTC):** 13 July 2018 at 1257 hrs

**Location:** Oban Airport, Argyll and Bute

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 2

**Injuries:** Crew - None Passengers - None

Nature of Damage: Damage to propeller and front wheel, and

shockloaded engine

Commander's Licence: Private Pilot's Licence

Commander's Age: 53 years

**Commander's Flying Experience:** 1,244 hours (of which 20 were on type)

Last 90 days - 33 hours Last 28 days - 19 hours

Information Source: Aircraft Accident Report Form submitted by the

pilot

## **Synopsis**

During the takeoff roll, the pilot became concerned about a flock of birds on the end of the runway and chose to abort the takeoff. At this point the IAS was above the normal takeoff speed. The aircraft failed to stop by the end of the paved surface, overran the runway and struck the airfield boundary fence before coming to a stop in an area of bushes just prior to the shoreline. The pilot believed that the brakes became overheated and ineffective.

## History of the flight

The flight was planned from Oban to Shoreham with three people on board and one dog. For departure the aircraft was close to its Maximum Takeoff Weight (MTOW) and the pilot backtracked to use the full length of Runway 19. At the threshold, he applied the brakes and advanced the throttle to an intermediate position. With all indications normal he released the brakes and applied full throttle, planning to accelerate to 85 kt for takeoff. The Pilots Operating Handbook (POH) for the aircraft gives a lift-off speed of 73 kt at the MTOW of 1,999 kg. The pilot stated that, in his view, aircraft performance was very poor at the lift-off speed indicated in the POH and that he always used higher speeds. At approximately 80 kt the pilot became aware of a flock of birds at low level over the end of the runway. He was concerned that the aircraft would not have sufficient performance to climb above the birds and so decided to stop.

The pilot was cognisant of the fact that locking the wheels would radically reduce braking performance and tried to avoid this while still applying significant braking effort. However, the aircraft failed to stop by the end of the paved surface, overran the runway and struck the airfield boundary fence before coming to a stop in an area of bushes just prior to the shoreline (Figure 1).



Figure 1
Aircraft on the Shoreline

Using figures from performance tables in the POH, it was determined that an approximate takeoff run for an aircraft lifting off at 73 kt would be 480 m. An approximate landing roll at the same mass would be 280 m. In this case, the braking effort was commenced from approximately 80 kt, so the distances to accelerate and stop would have been greater, but the manufacturer was unable to provide an accurate total distance. Runway 19 at Oban is 1,246 m long.

The pilot reported that in the last 25 m of the runway the brakes became ineffective and he believed that they had become overheated. The aircraft struck the bushes and the perimeter fence at approximately 5 kt. All those on board exited the aircraft without assistance and were clear of the aircraft when the airport RFFS arrived on scene.

## Conclusion

Distracted by the presence of birds over the end of the runway the pilot made a decision to abort the takeoff at high speed but was unable to stop before overrunning the end of the runway.