ACCIDENT

Aircraft Type and Registration:	Replica Fokker DR1, G-DREI	
No & Type of Engines:	1 Superior XP-IO-360-B1AC2 piston engine	
Year of Manufacture:	2017 (Serial no: LAA 238-14848)	
Date & Time (UTC):	19 April 2019 at 1410 hrs	
Location:	Old Buckenham Airfield, Norfolk	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - 1 (Minor)	Passengers - N/A
Nature of Damage:	Damage to the upper wing, cowling, rudder, engine and propeller	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	56 years	
Commander's Flying Experience:	390 hours (of which 41 were on type) Last 90 days - 3 hours Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and a report submitted by the airfield operator	

Synopsis

The replica Fokker tri-plane collided with an edge marker whilst taking off from Runway 02 at Old Buckenham. The collision caused the aircraft to rotate forward and invert. The limited forward visibility from the tri-plane meant the pilot could not see the edge marker.

History of the flight

On the day of the accident the pilot flew the replica Fokker tri-plane from Felthorpe Airfield to Old Buckenham Airfield, both near Norwich. It was the first time he had operated to Old Buckenham. Whilst on the ground he spoke to the airfield radio operator to determine the taxi route and departure procedure in preparation for his flight back to Felthorpe. He then returned to the aircraft and taxied to the grass area at the start of Runway 02 and 07 (Figure 1).

The pilot had observed from the windsock that the wind was from the north-east so thought he could takeoff from either Runway 02 or 07. He positioned the aircraft in the centre of what he believed to be Runway 07. After the accident he discovered he had actually been aligned with Runway 02 and had been unable to see Runway 07 to his right as it was obscured by the wing. He reported that the tri-plane had very poor forward visibility when on the ground making it difficult to see directly forward.

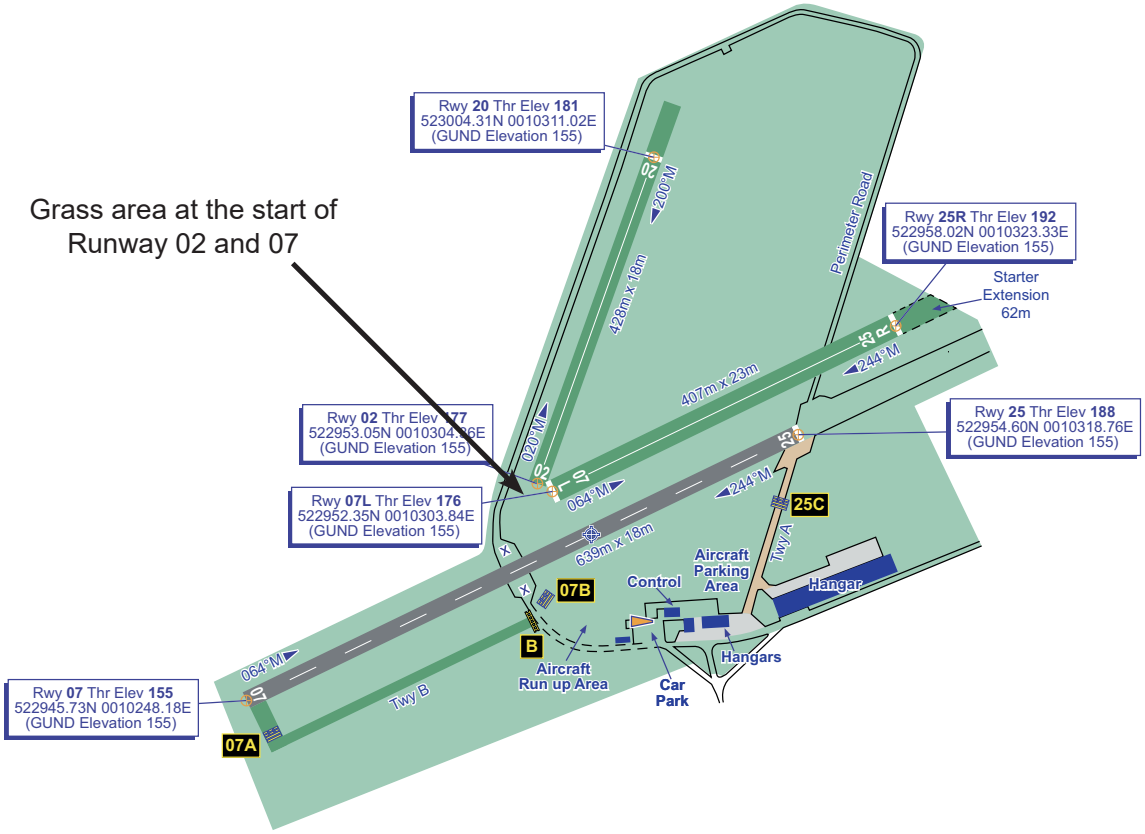

Figure 1

Old Buckenham Aerodrome Chart (from UK AIP)

The airfield air/ground radio operator expected the aircraft to takeoff from Runway 07 as the surface wind was indicating 070° at 11 kt favouring Runway 07. The radio operator observed that the aircraft was aligned with Runway 02 rather than 07 and advised the aircraft to move to the right. However, the pilot interpreted the message as an instruction to move to the right side of the runway. The pilot, therefore, moved the aircraft to the right but maintained alignment with Runway 02.

As the pilot started the takeoff roll, he reported that the right wheel collided with a runway edge marker causing the aircraft to rotate forward and invert (Figure 2).

Analysis

The accident occurred because the aircraft started its takeoff roll on the right side of Runway 02 and collided with an edge marker. The limited forward visibility from the tri-plane meant that the pilot could not see the edge markers.

The air/ground operator had tried to assist the pilot in aligning with Runway 07 but this advice had been misinterpreted by the pilot. He thought he was advised to move to the right side of the runway. This confusion resulted in the pilot aligning with the edge of the runway.

Figure 2
G-DREI inverted on Runway 02