

**ACCIDENT**

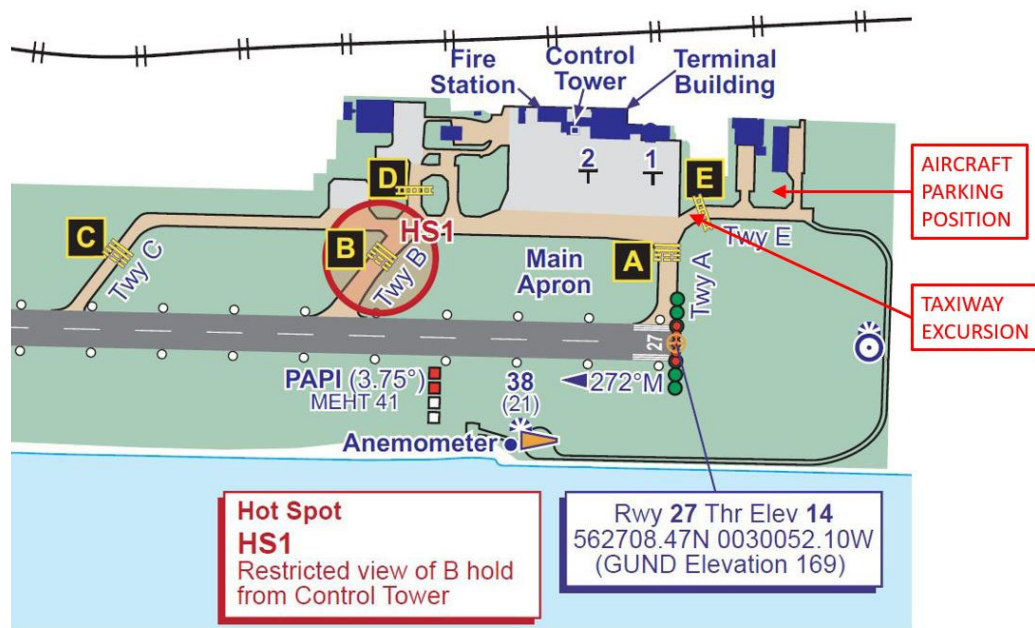
<b>Aircraft Type and Registration:</b>	Socata TB20 Trinidad, G-BMIX	
<b>No &amp; Type of Engines:</b>	1 Lycoming IO-540-C4D5D piston engine	
<b>Year of Manufacture:</b>	1985 (Serial no: 579)	
<b>Date &amp; Time (UTC):</b>	7 February 2019 at 1734 hrs	
<b>Location:</b>	Dundee Airport	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 1
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	Damage to left main landing gear oleo	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	59 years	
<b>Commander's Flying Experience:</b>	808 hours (of which 229 were on type) Last 90 days - 5 hours Last 28 days - 1 hour	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

The aircraft, whilst taxiing at night at Dundee Airport, departed the right side of Taxiway E at the point where the taxiway curves to the left prior to joining the main apron. The aircraft's left main landing gear oleo was damaged as it rolled over the paved edge of the main apron. A contributory factor in the pilot's loss of situational awareness of his position on Taxiway E may have been his loss of sight of the taxiway edge lights against the brightly-lit main apron. Excessive taxiing speed may have also been a contributing factor.

**History of the flight**

The pilot, accompanied by one passenger, intended to fly the aircraft from Dundee Airport to Aberdeen Airport. The aircraft was parked outside the maintenance facility on a grass apron and having started the aircraft, the pilot requested taxi instructions. He was instructed by ATC to taxi to the south side of the main apron, via Taxiway E (Figure 1), for pre-departure checks. The pilot was a regular visitor to Dundee Airport and stated that he had used Taxiway E on many occasions. It was dark when the aircraft started to taxi, with sunset having occurred at 1655 hrs.



**Figure 1**

Dundee Airport main apron and taxiway E (adapted from UK AIP)

The pilot taxied from the grass apron onto Taxiway E and proceeded towards the main apron. As the aircraft approached the main apron, the pilot described feeling that the aircraft went over a depression in the taxiway, followed by a loud bang, which he thought was one of the landing gear oleos bottoming out. He continued to taxi to the south side of the main apron when ATC called the pilot to state that they had heard a loud bang from the aircraft. The pilot stopped the aircraft and shut it down to investigate possible damage. The aircraft was attended by members of the AFRS and it was apparent that the left main landing gear oleo was damaged, caused by the aircraft departing Taxiway E and over-running the edge of the main apron.

A witness, who was familiar with both daytime and night aircraft operations on Taxiway E, observed the aircraft taxiing and stated that in his opinion, the aircraft's taxiing speed was excessive.

### Accident site and aircraft damage

Witness marks made by the aircraft as it departed Taxiway E showed that it had continued taxiing straight and had not turned left along the curved portion of the taxiway where it met the main apron, Figure 2.



**Figure 2**

Witness marks made by G-BMIX following departure from Taxiway E  
(photo used with permission)

The left main landing gear leg had sunk into the grass beyond Taxiway E and had then been subjected to an overload when the aircraft rode over the paved edge of the main apron. The overload caused the left main landing gear oleo to burst, Figure 3, releasing hydraulic fluid from the oleo. No other damage to the aircraft occurred during the accident.



**Figure 3**

Damage to the left main landing gear oleo  
(photo used with permission)

## Airfield information

The layout of taxiways and the main apron area at Dundee Airport is accurately depicted in the UK AIP aerodrome chart. Taxiway E is marked with a yellow painted centreline and the edges of the taxiway are marked with blue edge lights whose spacing and luminance comply with CAA publication CAP168 '*Licensing of Aerodromes*'.

## Human factors

The pilot stated that in his opinion, heading towards the brightly-lit main apron area along Taxiway E at night reduced the conspicuity of the blue taxiway edge lights, contributing to a loss of situational awareness of his position on the curved section of Taxiway E. He further stated that in daylight it was clear that the taxiway had a slight left turn as it joins the main apron.

## Discussion

The aircraft, whilst taxiing at night at Dundee Airport, departed the right side of Taxiway E at the point where the taxiway curves to the left prior to joining the main apron. The taxiway was appropriately marked and the edges lit with blue lights. It is possible that the pilot lost sight of the taxiway edge lights against the brightly-lit main apron, and despite his familiarity of Taxiway E during daylight, that this led to the aircraft continuing to taxi straight ahead and consequently departing from the curved section of taxiway. Excessive taxiing speed may have also been a contributing factor.

## Safety actions

Dundee Airport conducted an investigation into the event and plan to take two actions resulting from their investigation. A taxi speed limit is to be inserted into the warnings section of the textual data of the AIP document for Dundee Airport. The airport also plans to reduce the severity of the lip between the grass and the main apron surface at the point where Taxiway E joins the main apron.