

Socata TB9, G-BTWX , Flight Design CT2K, G-CBEX

AAIB Bulletin No: 10/2002 **Ref:** EW/G2002/07/30 **Category:** (i) 1.3 **(ii) 3**

Aircraft Type and Registration:	(i)	Socata TB9, G-BTWX	
	(ii)	Flight Design CT2K, G-CBEX	
No & Type of Engines:	(i)	1 Lycoming O-320-D2A piston engine	
	(ii)	1 Rotax 912 ULS piston engine	
Year of Manufacture:	(i)	1991	
	(ii)	2001	
Date & Time (UTC):		26 July 2002 at 1710 hrs	
Location:		Approximately 5 nm south of Cambridge Airport	
Type of Flight:		Private	
Persons on Board:	(i)	Crew - 1	Passengers - 2
	(ii)	Crew - 1	Passengers - 1
Injuries:	(i)	Crew - None	Passengers - None
	(ii)	Crew - None	Passengers - None
Nature of Damage:	(i)	Damage to right wing	
	(ii)	Damage to nose leg, left main gear and right tailplane. Minor skin damage to underside of fuselage and damage to VHF aerial.	
Commander's Licence:	(i)	Private Pilots Licence	
	(ii)	Private Pilots Licence	
Commander's Age:	(i)	35 years	

(ii) 75 years

**Commander's
Flying Experience:**

(i) 221 hours (of which 93 were on type)

Last 90 days - 42 hours

Last 28 days - 29 hours

(ii) 2,500 hours (of which 45 were on type)

Last 90 days - 19 hours

Last 28 days - 10 hours

**Information
Source:**

Aircraft Accident Report Forms submitted
by the pilots and enquiries by the AAIB

Synopsis

A collision between the two aircraft occurred at approximately 1,500 feet amsl, with G-BTWX heading northeast and G-CBEX heading west. Just prior to the collision, the pilot of G-BTWX saw the other aircraft, banked to the left and initiated a descent; neither the pilot nor passenger of G-CBEX saw G-BTWX before the collision. Both aircraft landed safely.

History of flight

The pilot of G-CBEX and his passenger departed Elsmett Airfield at 1640 hrs en-route for Northampton (Sywell) Aerodrome. The weather was good with excellent visibility. On his heading of west, the pilot was flying at 1,700 feet amsl on the regional pressure setting of 1016 mb; the sun was approximately in the pilot's 10 o'clock position. He and his passenger were suddenly aware of "a loud bang"; the passenger was then aware of "a flash of white" to his right. The pilot tried to contact Cambridge ATC and Duxford AFIS; although G-CBEX could receive messages, the transmit facility was unserviceable. The damage to the aircraft seemed to be restricted to the underside and the pilot reduced altitude at Duxford to get a good shadow on the ground. This indicated that the gear seemed intact and the pilot made an uneventful landing at Duxford.

The passenger was an employee of the company that imports the CT2K into the UK; he and the pilot reviewed the damage and concluded that the aircraft was serviceable to continue the flight to Sywell.

The pilot of G-BTWX took-off at 1705 hrs from Runway 24 at Duxford and made a right turn towards Cambridge. Having heard on R/T that another aircraft was approaching Duxford at 2,000 feet amsl, he levelled his aircraft at 1,500 feet amsl on 1016 mb. He contacted Cambridge Approach on frequency 123.60 MHz and advised the controller that he was inbound. As he was making his call, the rear passenger alerted him to the approaching aircraft. The pilot looked to his one o'clock position and, seeing the other aircraft an estimated 20 metres away, he immediately banked left and initiated a descent. All occupants of G-BTWX were aware of the impact and saw the damage to the right wing. The pilot also looked for and saw the other aircraft still flying straight and level. He made a 'PAN' call to Cambridge and made an uneventful landing.

Discussion

Subsequent to the collision, photographs and analysis indicated that the main impact was between the right wing of G-BTWX and the nose and left wheel of G-CBEX. Both pilots commented that the visibility was excellent. The pilot of G-BTWX stated that he had been looking for the reported aircraft approaching Duxford at 2,000 feet amsl and was also busy with his checks and radio calls during the short transit flight.

CAA General Aviation Safety Sense Leaflet 13A deals with collision avoidance. The publication concludes that the main reason for collisions is the '*failure of pilot to see other aircraft in time*'. It provides information on the limitations of the eye and gives good advice on effective avoidance procedures.