ACCIDENT

Aircraft Type and Registration:	1) Tri Kis, G-BVTA 2) Cessna 172S Skyhawk, G-ILPY
No & Type of Engines:	1) 1 Continental Motors Corp O-240-E piston engine 2) 1 Lycoming IO-360-L2A piston engine
Year of Manufacture:	1) 1995 2) 2001
Date & Time (UTC):	19 February 2011 at 1445 hrs
Location:	Dunkeswell Airfield, Devon
Type of Flight:	1) Training 2) N/A
Persons on Board:	1) Crew - 2 Passengers - None 2) Crew - None Passengers - None
Injuries:	1) Crew - None Passengers - N/A 2) Crew - N/A Passengers - N/A
Nature of Damage:	1) Fuselage cracked at left wing root, propeller, spinner, engine cowl, windscreen,left wingtip and left hatch 2) Rear fuselage, right wing strut and aileron and engine mount
Commander's Licence:	1) National Private Pilot's Licence 2) N/A
Commander's Age:	1) 49 years 2) N/A
Commander's Flying Experience:	1) 58 hours (of which 7 were on type) Last 90 days - 7 hours Last 28 days - 7 hours 2) N/A
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

Whilst manoeuvring G-BVTA on the ground through a tight turn, the pilot's foot slipped off the right rudder pedal and the aircraft collided with G-ILPY.

History of the flight

The pilot was receiving tution from an instructor. At the end of the sortie, he taxied to the threshold end of Runway 23 and turned right onto the embarkation area to allow his instructor to get out and make his way to the hangar area. The intention was that they would meet up again at the hangar for a debrief. The engine was shut

down and the instructor disembarked, walking away from the aircraft whilst the pilot restarted the engine and commenced the 180° turn to the left necessary to steer the aircraft towards the taxiway; being a relatively confined area, maximum left steering pedal and braking was used.

Having executed the 180° turn and come to a halt to watch for landing aircraft, parachutists, vehicles or pedestrians, the pilot realised that the nosewheel was cocked well over to the left and would need to be straightened, so he applied right rudder pedal and increased engine rpm to 1,300. Just before the aircraft started to move, he applied full right pedal and at this point his foot slipped off the pedal. He believes that the sudden forward lurch of his body also caused his right hand to move the throttle forward, resulting in an increase of 400-500 rpm. The aircraft accelerated rapidly in a left turn and, having turned though about 90°, was heading towards "a large black twin-engined Beechcraft used for parachuting" which was parked on the edge of the runway starter extension. The pilot judged that straightening out now would probably result in impact with this aircraft and also realised that he was unable to apply right rudder (possibly due to his shoe being caught behind the right pedal, he later reasoned). He tightened the left turn further with application of left brake, and successfully avoided the Beechcraft.

He was now approaching a Cessna 172, G-ILPY, which was parked to the left of the Beechcraft, but he momentarily hoped that he would be able to pass between the two aircraft. Unfortunately, the radius of turn had now decreased and the aircraft was now heading diagonally towards the tail of the Cessna. The pilot also believes that, in his struggle to free his right leg, he may have inadvertently nudged the throttle further open. Collision with G-ILPY was now inevitable and his left wingtip clipped the rear fuselage, spinning the Tri-Kis to the left and into the right side of the fuselage of the Cessna, just forward of the engine firewall. The engine stalled at this point and the aircraft came to rest with the left wing wedged under the tail of the Cessna, the spinner and remains of the wooden propeller embedded in the nose and the wing strut of G-ILPY severed.

The airfield owner arrived at the scene within seconds and undid the pilot's harness whilst also switching off the electrics. The pilot, momentarily stunned by the impact of his head on the upper cockpit hatch cover, reassured the airfield owner that he was alright and saw him attend to a fuel leak from a breather tube on the left wingtip. The pilot now realised that his right foot was trapped between the right rudder pedal and the centre console and managed to extricate it, after which he double-checked that the switches were off. He also noted that the throttle setting was depressed by an amount equivalent to about 2,200 rpm in flight. After exiting through the left hatch, which was off its hinges due to impact with the Cessna, he returned a few minutes later to remove the keys and double check the throttle setting.

In a detailed and frank statement, the pilot attributes the accident to his foot slipping off the right rudder pedal and becoming trapped; the resulting lurch of his body also caused him to inadvertently open the throttle. He identifies as causal factors the offset of the rudder pedals and the lack of friction material on them to improve grip. He also felt that the throttle friction device, which requires a button to be depressed in the centre of the knob each time a power adjustment is made, would be improved if it was in the form of a collar behind the knob, so that the throttle could be closed with a single, rearward motion.