| AAIB Bulletin: 3/2017 | G-BGCO | EW/G2016/10/09 | |
|---------------------------------|--|---------------------------------------|--|
| SERIOUS INCIDENT | | | |
| Aircraft Type and Registration: | Piper PA-44-180 S | Piper PA-44-180 Seminole, G-BGCO | |
| No & Type of Engines: | 2 Lycoming O-360 | 2 Lycoming O-360-E1A6D piston engines | |
| Year of Manufacture: | 1978 (Serial no: 44-7995128) | | |
| Date & Time (UTC): | 19 October 2016 at 1255 hrs | | |
| Location: | Warton Aerodrome, Lancashire | | |
| Type of Flight: | Private | | |
| Persons on Board: | Crew - 2 | Passengers - None | |
| Injuries: | Crew - None | Passengers - N/A | |
| Nature of Damage: | Right propeller | | |
| Commander's Licence: | Airline Transport Pilot's Licence | | |
| Commander's Age: | 63 years | | |
| Commander's Flying Experience: | N/K Last 90 days - N/K Last 28 days - N/K | | |
| Information Source: | Aircraft Accident Report Form submitted by the pilot | | |

Synopsis

The pilot lost directional control on landing and the aircraft departed the runway as a result of the emergency landing gear lowering cable fouling one of the brake pedals. The right propeller was damaged when it struck the ground as the pilot attempted to taxi from the grass back onto the paved surface.

History of the flight

The handling pilot reported that, following an uneventful flight from Cranfield and a base leg join, he carried out an approach to Runway 25. The surface was dry and the wind was light and from the north-west. The intention was to execute a 'touch-and-go' landing. Having confirmed that the other occupant had his feet clear of the rudder pedals, the touchdown was carried out on the mainwheels. Immediately afterwards, the nosewheel came down very sharply onto the runway surface and the aircraft began diverging to the left. Observers noted a small puff of smoke from beneath the aircraft as it touched down. The pilot had difficulty in bringing the aircraft back to the centreline. It continued to pull strongly to the left and, as the speed reduced to a fast walking pace, it ran onto the adjacent grass.

It was decided that the final position of the aircraft would cause difficulties in the continued operation of the airfield and so an attempt was made to taxi the aircraft toward the nearby Taxiway C. During this manoeuvre the right propeller struck the ground, damaging one of the blade tips.

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Aircraft examination

Subsequent examination of the aircraft revealed that the cable operating the emergency landing gear lowering system was in contact with the left brake pedal on the right hand pilot's rudder pedals. Whilst forward movement of the right hand rudder pedal in either pilot position would cause both left rudder pedals to move aft in the normal way, the aft movement of the left rudder pedal in the right pilot's position would cause the cable to tighten and drive the left brake pedal forward relative to the rudder pedal on which it was mounted. Consequently, operation of the rudder pedal system in attempts to steer the aircraft to the right would result in the inadvertent application of the left brake.

The possibility of the emergency release cable coming into contact with a brake pedal on this aircraft type was identified many years ago. Consequently, a service bulletin was issued by the manufacturer to install a fitting which located the cable more positively, preventing mutual contact. An Airworthiness Directive was subsequently raised to mandate the installation of this fitting. Examination of the aircraft confirmed that the fitting had been installed; unfortunately installation had been carried out incorrectly and the fitting was orientated such that the risk of hazardous contact between the cable and the brake pedal was increased, rather than eliminated.

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