

## ACCIDENT

<b>Aircraft Type and Registration:</b>	Rockwell Commander 112TC, G-ERIC	
<b>No &amp; Type of Engines:</b>	1 Lycoming TO-360-C1A6D piston engine	
<b>Year of Manufacture:</b>	1976	
<b>Date &amp; Time (UTC):</b>	16 August 2008 at 1215 hrs	
<b>Location:</b>	Cranfield Airport, Bedfordshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Nose landing gear detached, propeller damaged and engine shockloaded	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	53 years	
<b>Commander's Flying Experience:</b>	432 hours (of which 144 were on type) Last 90 days - 4 hours Last 28 days - 1 hour	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

## Synopsis

After touching down from a reportedly stable approach, the aircraft swung to the left, which was coincident with the flaps being raised and the application of power during a touch-and-go. The aircraft departed the paved surface and passed over a drainage ditch, which removed the nose landing gear. Consequently, the propeller dug into the ground and the aircraft stopped.

## History of the flight

The accident occurred during a series of touch-and-go landings carried out after completion of a flight in the local area. After touching down from a reportedly stable approach on the fourth touch-and-go, with a light crosswind from the left that was well within the limits of

the aircraft and the pilot's experience, the aircraft swung to the left coincident with the flaps being raised and the application of power. The pilot immediately closed the throttle and applied right rudder, but he reported that the aircraft continued to veer left. It departed the runway and, after crossing a drainage ditch during which the nose gear was torn off, the propeller dug into the ground the aircraft came to rest. The pilot advised ATC that there were no injuries, shut down the aircraft's systems and vacated the aircraft without difficulty.

## Aircraft history

The group-owned aircraft had recently been repaired after extensive damage caused by a wheels-up landing.

Whilst undergoing these repairs, the original 2-blade propeller was replaced with a 3-bladed unit. After the aircraft's return to service, the pilot reported that he and other members of the group had experienced an "instability on rolling out" but he attributed this to a lack of recency on the aircraft in question, although he had maintained his flying currency on other aircraft whilst G-ERIC was out of service. On two occasions, excursions from the runway occurred, neither causing any damage. On one occasion he was flying, and on the other the aircraft was being flown by another member of the group. He attributed the former to "a sudden failure of the nose oleo", but was unable to elaborate as to the precise nature of this failure<sup>1</sup>, or how it might have led to a loss of directional control.

The maintenance organisation that both repaired the aircraft following the wheels-up landing and replaced the propeller, stated that flight tests were carried out

on completion of the repairs. This included one flight with a member of the owner group on board and they assessed the aircraft exhibited normal flying and handling qualities throughout. Specifically, they stated that the installation of the 3-blade propeller had not resulted in any discernible change in these qualities.

The pilot acknowledged that a propeller rotating clockwise (from behind) will give rise to a swing to the left as power is applied, due to asymmetric propeller wash over the fin and rudder. Whilst not thinking it to be very likely, he considered that the 'propwash' effect from the new 3-blade propeller might have differed to some extent from that of the 2-bladed propeller fitted originally.

---

**Footnote**

<sup>1</sup> This was later determined by the maintenance organisation as a deflation of the oleo strut, brought about by the loss of a blanking plug.