

# FINAL REPORT

AAIU Report No: 2010-017  
State File No: IRL00910022  
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In accordance with the provisions of SI 460 of 2009, the Chief Inspector of Air Accidents, on 21 March 2010, appointed Mr. Paul Farrell as the Investigator-in-Charge to carry out a Field Investigation into this Accident and prepare a Report. The sole purpose of this Investigation is the prevention of aviation Accidents and Incidents. It is not the purpose of the Investigation to apportion blame or liability.

<b>Aircraft Type and Registration:</b>	Auster 5, Series J1, EI-AUM	
<b>No. and Type of Engines:</b>	1 x Cirrus Minor II	
<b>Aircraft Serial Number:</b>	2612	
<b>Year of Manufacture:</b>	1947	
<b>Date and Time (UTC):</b>	21 March 2010 @ 16.30 hrs	
<b>Location:</b>	Seven Parks Farm, Co. Dublin	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 1
<b>Injuries:</b>	Crew - Nil	Passengers - Nil
<b>Nature of Damage:</b>	Substantial	
<b>Commander's Licence:</b>	Commercial Pilot Licence, issued by the Irish Aviation Authority (IAA)	
<b>Commander's Details:</b>	Male, aged 68 years	
<b>Commander's Flying Experience:</b>	9,255 hours, of which 122 were on type	
<b>Notification Source:</b>	Pilot	
<b>Information Source:</b>	AAIU Pilot Report Form submitted by Pilot, AAIU Field Investigation	

## **SYNOPSIS**

On landing, the aircraft veered to the right, ground-looped and impacted a boundary fence.

## **1. FACTUAL INFORMATION**

### **1.1 History of the Flight**

The aircraft was flying a circuit detail on Runway (RWY) 27 at Seven Parks Farm. The first circuit was uneventful. While landing from the second circuit, directional control was lost, and the aircraft veered to the right striking a wire boundary fence. The aircraft came to rest with the tail still on the higher/runway side of the fence and the tail plane against a fence post (**Photo No. 1**).

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The Pilot attributed the accident to the, “...start of a ground loop which I failed to correct in time”. There were no injuries. The Pilot and passenger exited the aircraft unaided.



**Photo No. 1: Aircraft as it came to rest**

### **1.2 Airfield**

Seven Parks Farm is located 11 nm north of Dublin Airport (EIDW), at an elevation of 240 ft above mean sea level (AMSL). RWY 09/27 is 640 m long with a 2% downslope on RWY 27.

### **1.3 Certification and Maintenance**

The aircraft was operating on a Permit-to-Fly valid until 1 December 2010. The Pilot held a valid Commercial Pilot Licence issued by the IAA. The aircraft was well maintained. The Pilot informed the Investigation that he experienced no control difficulties during the flight.

### **1.4 Aircraft Damage**

Beyond the boundary fence the ground level fell away by approximately 0.6 m into an adjacent field. The aircraft's main wheels dropped into an adjacent field causing the propeller and engine bottom cowling to impact the ground at low speed. The aircraft suffered substantial damage including a broken propeller tip, crushed bottom engine cowling, damaged right wing struts and tearing of the fabric on the bottom of the fuselage. On-site inspection by the Investigation verified the continuity of all control runs.

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## 1.5 Meteorology

The Pilot reported that at the start of his detail the wind was a southerly of 4-5 kts. He estimated that winds aloft were stronger and he noted that after the event the wind had backed slightly.

## 1.6 Aircraft Undercarriage Design

The aircraft undercarriage is comprised of two main wheels forward of the aircraft centre of gravity (CoG) and a tail wheel aft of the CoG. Aircraft with this undercarriage arrangement are usually referred to as tail-wheel (tail-dragger) aircraft. Due to this arrangement the CoG is behind the main wheels and consequently during ground manoeuvring the aircraft can suffer from directional instability. Tail wheel aircraft are particularly prone to directional control problems during taxiing, take-off roll and landing roll. For example, if the pilot allows the aircraft to swerve while rolling on the ground at a low speed, he or she may not have sufficient rudder authority and the CoG will attempt to get ahead of the main gear which can cause the airplane to ground loop.

## 2. ANALYSIS

On landing, the aircraft veered to the right and commenced a ground loop that was not corrected in time by the Pilot.

## 3. CONCLUSIONS

### (a) Findings

1. The aircraft was properly certified and maintained.
2. The Pilot held a valid licence.
3. The aircraft experienced a ground loop on landing which the Pilot was unable to correct.

### (b) Probable Cause

Aircraft ground looped on landing.

### (c) Contributory Factors

1. Cross wind on the runway at time of landing.
2. Pilot unable to correct the start of the ground loop.

## 4. SAFETY RECOMMENDATIONS

This Investigation does not sustain any Safety Recommendations.

- END -