

FINAL REPORT

AAIU Synoptic Report No: 2009-020
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In accordance with the provisions of SI 205 of 1997, the Chief Inspector of Air Accidents, on 29 May 2009, appointed Mr. Thomas Moloney as the Investigator-in-Charge to carry out a Field Investigation into this Accident and prepare a Synoptic 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.

Aircraft Type and Registration:	Société Wassmer Jodel D.112 Club, G-INNI
No. and Type of Engines:	1 x Continental A65-8
Aircraft Serial Number:	540
Year of Manufacture:	1956
Date and Time (UTC):	29 May 2009 @ 18.04 hrs
Location:	Galway Airport (EICM), Co Galway
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - Nil
Injuries:	Crew - Nil Passengers - Nil
Nature of Damage:	Minor
Commander's Licence:	Private Pilot Licence issued by the Irish Aviation Authority (IAA)
Commander's Details:	Male, aged 41 years
Commander's Flying Experience:	243 hours, of which 128 were on type
Notification Source:	EICM Tower Controller
Information Source:	AAIU Investigation by Correspondence

SYNOPSIS

The tail-wheel configured aircraft encountered difficult crosswind conditions on landing at EICM, and entered a ground loop just after touchdown. The port undercarriage leg failed. The Pilot was uninjured and the aircraft sustained minor damage.

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1. FACTUAL INFORMATION

1.1 History of the Flight

The aircraft had departed from Fethard, Co. Tipperary with the intention of landing in EICM. The Pilot, who was the owner of the aircraft, informed the Investigation that he made a normal visual approach to Runway (RWY) 08 at EICM using a crabbing technique, as he was aware of a 15 kts crosswind on the runway. On the round-out he straightened the aircraft with the rudder before putting the wheels on the ground. He stated “*sometime into the roll-out, the right wing was lifted by a gust of wind*”. The aircraft also started to yaw to the right. He applied full into-wind aileron but this did not succeed in keeping the right wing down. He stated that the full weight of the aircraft was now on the port undercarriage and that “*I felt the undercarriage give before I could apply power for a go around*”. The aircraft turned sharply to the right and “*came to a halt some ten yards on from that*”. There was no propeller strike. The Pilot cut the engine, turned off the fuel supply and vacated the aircraft. He was uninjured. The Airport Fire Service attended at the scene and confirmed that there was no fire or fuel spillage. Damage was limited to the broken port undercarriage leg and some slight scuffing of the port wing-tip.

The Tower Controller informed the Investigation that the aircraft “*appeared on landing to bounce and the aircraft then turned right 100 degrees and bounced on its left hand side where the port side undercarriage collapsed*”.

1.2 Aircraft Information

The designation D.11 covers the basic range of Jodel two-seaters designed in France in the late nineteen forties and early fifties for amateur and commercial production. The D.112 Club is a two-seat dual-control aircraft of mainly plywood and fabric construction. It is powered by a 65 hp Continental flat-four engine. The undercarriage consists of two cantilever main legs with rubber-in-compression springing and a steerable tail-wheel.

G-INNI was being operated under a Permit to Fly issued by the U.K. Civil Aviation Authority (CAA). The U.K. Permit states, *inter alia*, “*Permission for flight over any foreign country must be obtained from the Airworthiness Authority of that country.*” The Irish Aviation Authority (IAA) has no record of granting such permission for G-INNI.

Documentation, including Aircraft Flight Manuals for older design light aircraft such as the Jodel D.11 series, is relatively less detailed than for more modern aircraft. In relation to strong winds and cross winds the Instruction Manual states, “*The aircraft is extremely well behaved in cross winds and taxiing in strong winds is no problem. For crosswind landings normal procedure applies up to 12 Knots crosswind component.*” No further guidance is provided for crosswinds of greater than 12 kts.

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1.3 Weather Information

The relevant meteorological conditions provided to the Investigation by Galway Airport on the day of the accident were “150°/14 kts, 9999, SCT030, 19/14, Q1023”.

An aftercast provided by Met Éireann for EICM on 29 May 2009 at 18.00 hrs gave a surface wind of “160°/15kts with possible gust to 25kts”. The aftercast also stated “*Satellite and RADAR imagery confirm that a relatively benign situation existed at the time of the incident. The most significant meteorological feature being the winds and the possibility of local gustiness*”.

The Pilot’s report stated that he was aware of a crosswind of 15 kts on RWY 08.

2. ANALYSIS

The Met Éireann aftercast indicates that gusts of up to 25 kts were possible almost directly across RWY 08 at the time of the accident. In the worst-case scenario, the Pilot may have encountered a gust which exceeded the crosswind capabilities of the aircraft.

The Jodel range of aircraft, in common with most tail-wheeled light aircraft types, is known for its propensity to ground loop in difficult wind conditions and this is the most likely scenario in this case. It is probable that a gust of wind lifted the starboard wing at a critical moment and, despite the Pilot’s best efforts to lower that wing using full starboard aileron, the aircraft entered into a ground loop to the right. Most of the weight of the aircraft was placed on the port undercarriage leg which consequently failed.

Pilots of tail-wheel configured light aircraft, especially those who have trained on or regularly fly tricycle undercarriage types, are reminded of the increased possibility of ground looping when operating in crosswind conditions.

3. CONCLUSIONS

(a) **Findings**

1. The Pilot was properly licensed for the flight.
2. The aircraft was flying under a Permit to Fly issued by the U.K. CAA.
3. The IAA has no record of granting permission for the aircraft to fly in Ireland. Such permission is a requirement of the U.K. CAA Permit.
4. Wind conditions at EICM at the time of the accident were gusty with a possibility of gusts of up to 25 kts almost directly across the active runway.

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5. The starboard wing was lifted by a gust of wind just at the point of touch-down on RWY 08. The Pilot was unable to correct this upset using the flight controls.
6. The aircraft ground looped to the right and the port undercarriage leg failed.

(b) Probable Cause

A landing was attempted in difficult crosswind conditions which may have exceeded the crosswind capabilities of the aircraft.

4. SAFETY RECOMMENDATIONS

The Investigation does not sustain any Safety Recommendations.

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