

# FINAL REPORT

**AAIU Synoptic Report No: 2007-021**

**AAIU File No: 2007/0066**

**Published: 24/09/2007**

**In accordance with the provisions of SI 205 of 1997, the Chief Inspector of Air Accidents, on 29 July 2007, appointed Mr. Frank Russell as the Investigator-in-Charge to carry out a Field Investigation into this Accident and prepare a Synoptic Report.**

<b>Aircraft Type and Registration:</b>	Luton LA.4A Minor, G-AWMN
<b>No. and Type of Engines:</b>	1 x VW 1776 CC
<b>Aircraft Serial Number:</b>	PFA 827
<b>Year of Manufacture:</b>	1987
<b>Date and Time (UTC):</b>	29 July 2007 @ 15.00 hrs
<b>Location:</b>	Kilrush Airfield, Co Kildare
<b>Type of Flight:</b>	Private
<b>Persons on Board:</b>	Pilot - One
<b>Injuries:</b>	Pilot - None
<b>Nature of Damage:</b>	Substantial to fuselage, propeller undercarriage and tailplane
<b>Commander's License:</b>	UK PPL(A)
<b>Commander's Details:</b>	Male, aged 30 years
<b>Commander's Flying Experience:</b>	112.8 hours (including 1.4 hours on type)
<b>Notification:</b>	Duty Pilot Kilrush Airfield informed AAIU.
<b>Information Source:</b>	AAIU field investigation.

## **SYNOPSIS**

The pilot intended carrying out some circuit training in his newly acquired Luton Minor aircraft at Kilrush airfield. It was his second flight of the day. On approach to land, the aircraft bounced and, as the pilot initiated a go-around, the aircraft struck an ESB power line with the tail wheel. This caused the aircraft to spin down onto the main Kilcullen to Athy road. While there was a heavy vertical impact, with subsequent serious aircraft damage, the pilot exited the aircraft uninjured. There was no fire. The Gardaí and Fire services were quickly on the scene and the road remained closed to traffic for over three hours.

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## 1. FACTUAL INFORMATION

### 1.1 History of the Flight

The pilot used RWY 29 at Kilrush, a grass runway of 600 metres in length. In his report to the AAIU he said that it was his second flight of the day and he was making a normal approach to land on RWY 29. As he passed over the threshold at 50 kts he initiated a flare as he took the power off to land and the aircraft bounced back up from the runway. He said that he felt that the bounce was sufficient to initiate a go-around and he applied full throttle and turned the carb heat to cold, but could not gain sufficient airspeed to climb over the power lines. The pilot thought he had cleared these lines but the tail wheel caught them and the aircraft spun down onto the main Athy road (See **Photo No.1**).

There were a number of reliable witnesses to the accident on the airfield. One such witness recalled, *“On my radio I heard the pilot announce his intention to enter the runway for departure, which he did immediately and accelerated along the runway. At this point I was joined by two other pilots who were on their way to the south hangar area and invited me to join them. As we left the tower area the Luton Minor passed us and was just getting airborne. We remarked how hard the pilot was operating the rudder to keep the aircraft straight on the grass and how he continued to pedal the rudder pedals unnecessarily when airborne. We observed the aircraft climb out slowly and turn right in a northerly heading at about 300 feet AGL. It appeared to be flying in a nose high attitude while under observation. We continued our walk to the south hangar area and heard the pilot announce a downwind position for a full stop landing on RWY 29. On reaching the south hangar area we heard an aircraft engine accelerate and observed the Luton Minor appearing from behind the north hangar. The aircraft was flying slowly at about 20 feet above the runway in a nose high attitude, holding an unsustainable angle of attack. It was immediately obvious to us that the aircraft had insufficient height to clear the airfield boundary. We observed the pilot inputting an abrupt up elevator movement in an attempt to clear the power lines some metres south of the runway centerline, along the airfield boundary. The tail wheel appeared to have snagged the power lines. There was an enormous bang as the power lines shorted out and the aircraft spun violently to the left, descending out of sight behind the trees”*.

This witness, and others, immediately called the emergency services and ran to the scene of the accident to render assistance. When they arrived the pilot had already evacuated the wrecked aircraft and appeared unhurt but in shock. The witness approached the aircraft to turn the fuel and magnetos off but found that this had already been done. The Gardaí preserved the scene until the arrival of an AAIU Inspector of Air Accidents.

## 2. ANALYSIS

The Luton Minor is a homebuilt, single seat, tail wheel aircraft. The pilot had recently acquired it and had flown 1.4 hours in it up to the time of the accident. There is no dual control version of this particular aircraft, so a pilot has to be fully briefed and conversant with the aircraft before undertaking solo flights. This is usually done by reference to experienced pilots on type. This is a judgement call that operators of homebuilt aircraft have to make and their previous flying experience would clearly be an important factor in weighting up the pros and cons before undertaking flight in an aircraft for which there is no dual instruction available.

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The ESB power line struck by the aircraft is located to the left of RWY 29 on the airfield boundary. It is 7-8 metres above the ground and is designated an “overhead 10KV single phase line”, by the ESB or, in other words, a high voltage line. Under normal circumstances, this power line does not pose a threat to aircraft taking off and landing on RWY11/29, as it is well away from the centre line.

The weather was good on the day of the accident, with wind direction and speed given as 290°, 6-8 kt at 15.00 hrs, but with a more northwest gradient by 16.00 hrs, as observed by witnesses viewing the windsock. This slight cross-wind component and the failure of the aircraft to achieve a safe climbing speed caused the aircraft to drift left of centre line on take-off and come into contact with the ESB power line. The reported excessive use of the rudder would significantly increase the drag on this very low powered aircraft and would have had a major effect on the aircraft’s capability to climb. The strong afternoon sunlight would have been in the pilot’s eyes and possibly obscured the pilot’s vision of the power lines as he drifted in their direction. This, and the pilot’s manifest inexperience on type probably contributed to the accident.

### 3. SAFETY RECOMMENDATIONS

This Report does not sustain any Safety Recommendations.



**Photo No.1: Final resting position of G-AWMN on Athy road**

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