FINAL REPORT

AAIU Report No: 2010-011
State File No: IRL00909063
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In accordance with the provisions of SI 205 of 1997, the Chief Inspector of Air Accidents, on 29 July 2009, appointed Mr. Graham Liddy as the Investigator-in-Charge to carry out a Field Investigation into this Incident 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.

Aircraft Type and Registration:	Powered para-glider, no registration	
No. and Type of Engines:	1 x Bailey 175 cc 4-stroke	
Aircraft Serial Number:	None	
Year of Manufacture:	2005	
Date and Time (UTC):	26 July 2009 @ 09.00 hrs	
Location:	Salterstown, Co. Louth, Ireland	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 0
Injuries:	Crew - 0	Passengers - 0
Nature of Damage:	Minor	
Commander's Licence:	Exempt	
Commander's Details:	Male, aged 52 years	
Commander's Flying Experience:	132 hours, of which 87 were on type	
Notification Source:	Pilot	
Information Source:	Pilot's Report Form	

SYNOPSIS

After a flight of one hour, the Pilot decided to practise a forced landing exercise. He overshot the landing point and struck power lines near the field boundary. The para-glider suffered minor damage but there was a loss of power to a significant number of electricity users as a result of the incident.

1. FACTUAL INFORMATION

1.1 History of the Flight

The Pilot took off in the foot launched powered para-glider at approximately 08.00 hrs UTC (09.00 hrs local) for a flight in the local area, operating at about 500 ft. After an hour he returned to overhead the departure field. He decided to conduct a forced landing exercise in a nearby field that he had previously used for this purpose, without experiencing any difficulties. When overhead this field at 500 ft, he reduced engine power to idle and began gentle turns to lose height. At 100 ft he straightened up for the final glide into the selected field. At about 20 ft he noticed that he had encroached

further into the field than expected and that he was coming close to power lines running along the far boundary fence. He initially applied full power but then decided he would not be able to clear the power lines. He stopped the engine and turned hard when approximately 5 feet above the ground to avoid hitting them. During the landing the canopy (or wing) of the para-glider carried forward and became entangled in the power lines.

The Pilot disconnected himself from the canopy and informed the ESB[1] of the event. As the lines were carrying power he did not attempt to disentangle the canopy from the power lines.

1.2 Landing Field

The selected field was approximately 180 metres long and 360 metres wide. A 10,000-volt (10 KV) set of power lines ran the width of the field, slightly inside the far boundary fence. The wind was approximately 5 kts, across the field, from right to left.

1.3 Aircraft Information

The powered para-glider consists of a canopy similar to a parachute, but designed so that the canopy performs like an aircraft wing, generating lift. The pilot is suspended in an underslung harness. Speed and direction are controlled by pulling on toggles. Pulling both toggles results in a braking action. The para-glider can be launched without a power unit from hilltops. For taking off from flat sites the pilot can attach a small engine, which drives a propeller mounted in a protective cage, to his back and this provides enough forward speed to enable the wing to generate sufficient lift to keep the powered para-glider airborne. A powered para-glider, similar to the one involved in this incident, is shown in **Photo No. 1.**

Photo No. 1: A Similar Powered Para-Glider

[1] **ESB** means the Electricity Supply Board.

The powered para-glider normally flies in an airspeed range of 20 to 30 mph.

1.4 Damage to the Powered Para-Glider

The para-glider suffered some scuffing of the canopy from contact with the power lines. The canopy also suffered a small burn hole, about 2 – 3 cm across.

1.5 Other Damage

In order to disentangle the canopy from the power lines the ESB had to de-power the lines. As a consequence some 87 ESB customers were without electricity for a period of almost two hours.

1.6 Pilot's Experience

The Pilot had a total of 87 hours experience of powered para-gliders including 10 hours under supervision. In addition he had a total of 47 hours on micro-lights and 8 hours on a Cessna 150.

1.7 Pilots Licence

The Irish Aviation Authority (IAA), in pursuance of Article 5 of the Irish Aviation Authority (Personnel Licensing) Order 2000 (S.I. No. 333 of 2000 and in consideration of paragraph 4.3 of Aeronautical Information Circular (AIC) Nr. 11/04 (concerning Foot Launched Powered Flying Machines) had granted the Pilot an exemption from the requirement to hold a pilot license to fly this powered para-glider, on the condition that the pilot held a valid JAR-FCL Class 2 medical certificate issued by an Irish aero-medical examiner. At the time of this incident the pilot held such a valid medical certificate.

1.8 Other Information

The Pilot submitted a completed Incident Report form to the AAIU. In it, he candidly stated that he became overly focused on his expected landing spot and had not kept a proper lookout for potential obstacles. He further added that it would be preferable to pick an obstacle-free field when conducting practice field-landing exercises.

2. ANALYSIS

The choice of landing field was not optimum, in that it involved a cross wind landing, that did not use the maximum dimension of the field and featured a dangerous obstacle at the far end (the power lines).

The selected field did offer a significantly better landing area, if the approach was made into wind along the longer dimension, with the power lines parallel to the approach path.

The decision of the Pilot to abandon the overshoot was prudent in that it avoided his body or the power unit making contact with the power lines, with potentially far more serious consequences.

3. CONCLUSIONS

(a) Findings

1. The Pilot held a valid licensing exemption for the operation of this powered para-glider.

2. The selection of a landing field with a dangerous obstacle at the far end was not prudent and not in keeping with good airmanship.

(b) Probable Cause

1. Selection of an unsuitable landing area for a field landing exercise.

(c) Contributory Cause

1. Over-focusing on the landing area.

2. Failure to maintain a lookout for a dangerous obstacle.

4. SAFETY RECOMMENDATIONS

This Investigation does not sustain any Safety Recommendations.

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