FINAL REPORT

AAIU Synoptic Report No: 2007-004
AAIU File No: 2006/0063
Published: 05/02/07

In accordance with the provisions of SI 205 of 1997, the Chief Inspector of Accidents, on 6 December 2006, appointed Mr. Paddy Judge as the Investigator-in-Charge to carry out an Investigation into this Accident and prepare a Synoptic Report.

Aircraft Type and Registration:	Glider - Centrair Pegase 101A EI-162
No. and Type of Engines:	N/A
Aircraft Serial Number:	101A0346
Year of Manufacture:	1989
Date and Time (UTC):	07 August 2006 @ 16.15 hrs
Location:	Clonegal, Co. Wexford
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - Nil
Injuries:	Crew - Nil Passengers - N/A
Nature of Damage:	Substantial damage to wings, fuselage and tail
Commander's Licence:	N/A
Commander's Details:	Male, aged 48 years
Commander's Flying Experience:	95 hours, of which 49 were on type
Information Source:	Accident Report Form submitted by Owner/Pilot

SYNOPSIS

The glider was taking part in a 50 km cross country Silver Distance attempt in good weather conditions. Gliding conditions deteriorated en-route forcing the pilot to land in a field. He overshot the field, clearing the far boundary fence but hit a tree on a subsequent fence. The result was substantial damage to the starboard wing, wing root and port wingtip, with tail boom and tail assembly disrupted on ground impact. The pilot was uninjured. No injuries or damage to third party property resulted but the glider is probably damaged beyond economic repair.

FINAL REPORT

1. FACTUAL INFORMATION

1.1 History of the Flight

The glider was launched by aero-tow from Gowran Grange airfield at 13.15 hrs local time. Weather conditions were good with a light northerly breeze (007°/8 kt), good visibility and no cloud. The flight was a cross country Silver Distance attempt, the pilot's second attempt that day. The earlier flight was curtailed due to inadequate thermals. Good thermal conditions existed at take off time on the second flight but deteriorated subsequently. However, the flight continued finding regular thermal lifts but with strong sink between them.

Approximately 50 km south of Gowran Grange close to Bunclody, Co Wexford, the pilot no longer found lift and the aircraft began to lose altitude. A suitable field was picked out for landing at a height of approximately 1,500 ft above ground level (agl). The actual decision to commit to this particular field was made at about 1,000 ft. The grass field selected was approximately 300 metres long.

During his approach to land the pilot overshot the intended field at a low altitude and low speed. He cleared the boundary hedge at the far end of the field and turned right to avoid a tree. While crossing a further hedge the starboard wing contacted a tree on that hedge twisting the glider through 270 degrees. This rapid turn resulted in the tip of the port wing also hitting the tree as the glider fell from a height of approximately 10 ft. The pilot was unhurt but damage to the glider was substantial (see **Photo No. 1**).

In his submitted Accident Report Form the Pilot considered that he had misjudged the final flight path, possibly due to the slope of the field.

The accident happened at 16.15 hrs, after about three hours airborne.

1.2 Damage

The right wing leading edge had an impact point at mid span with partial opening of the leading edge outboard from that point, the right wing root was bent aft (see **Photo No 2**). The left wingtip, though fractured, was still attached. Most damage was to the tail area, its boom and the T-tail fin assembly. The boom was fractured, tail assembly distorted and fin opened. It is probable that ground impact distorted the T-tail fin assembly and snapped the tail boom approximately half way along its length.

1.3 Technical Information

The Centrair Pegase is standard class, advanced single-seat, high performance, glass fibre construction sailplane with a retractable undercarriage. The flapless wingspan of 15 metres gives a best glide ratio of 41:1 at 57 kt (about 118 feet/minute) and a stall speed of 40 kt. The sideslip characteristics can lead to an abrupt nose drop on application of full rudder therefore sideslip is not an option close to the ground. It has speed brakes on its upper wing, which are, and were in this case, used to control the descent gradient. Approach speed is Vs + 10 or 50 kt.

2. ANALYSIS

Weather conditions were satisfactory for gliding and weather was not a significant factor in this accident. The pilot was attempting a Silver Distance, which is a cross-country flight of at least 50 km. He has a Bronze C gliding qualification and had completed a number of cross country flights in the Pegase during which he landed "off field" (at a field other than the planned landing field) on four previous occasions.

On deciding to land at about 1,500 ft the pilot would have had probably about 10 minutes flying time remaining assuming he was flying at best glide ratio speed. The actual decision on the particular field was made about 1,000 ft with the grass field selected approximately 300 metres long and adequate for a safe landing. Although the pilot stated in his report that his misjudgement of the approach may have been due to the slope of the field, in a subsequent conversation, he felt that the valley location of the field might also have been a contributory factor.

In addition, the convex nature of the field picked was also likely to assist in generating erroneous visual cues for the pilot. In an off-field landing such as this, as the specific height above the ground is unknown, the pilot must rely on a visual assessment of his approach and descent angle. While a standard three-point circuit, designed to assist this assessment, was flown by the pilot with the landing planned upslope and into wind, the challenges of off-field landings are such that they require constant practice. To that effect, it is noted that the pilot was relatively inexperienced.

The combination of low altitude and slow speed coupled with the nature of the accident resulted in a gradual absorption of energy to the extent that the pilot was uninjured.

3. SAFETY RECOMMENDATIONS

This Investigation does not sustain any Safety Recommendations.

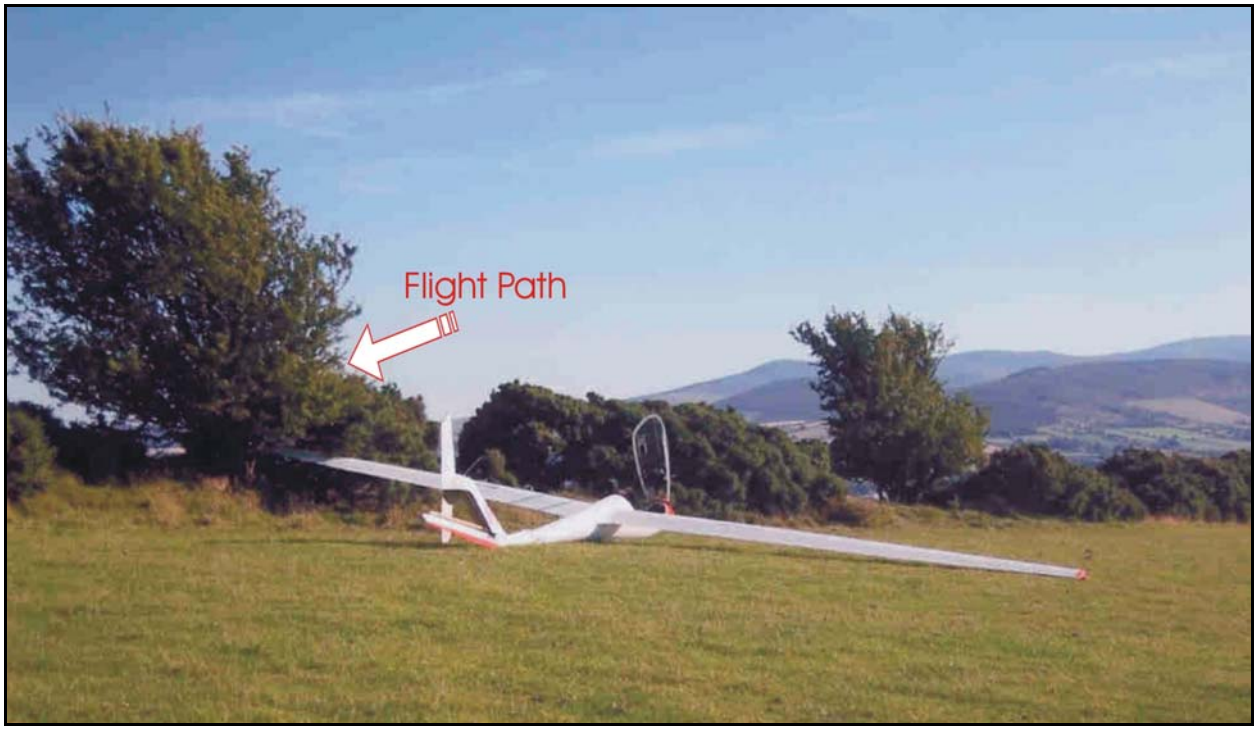

Photo No. 1: Final resting position of EI-162

Photo No 2: Initial impact point on mid-section of starboard wing.

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