

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Piper PA-22-160 Tri-Pacer, G-ARDT	
<b>No &amp; Type of Engines:</b>	1 Lycoming O-320-B2B piston engine	
<b>Year of Manufacture:</b>	1958	
<b>Date &amp; Time (UTC):</b>	18 May 2008 at 1230 hrs	
<b>Location:</b>	Northside, 5 miles SW of Aberdeen	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 2
<b>Injuries:</b>	Crew - None	Passengers - 1 (Serious) 1 (Minor)
<b>Nature of Damage:</b>	Substantial: left wing destroyed, right wing damaged, landing gear severely damaged, engine shock-loaded, propeller damaged, cowlings and struts disrupted. Aircraft damaged beyond economic repair	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	51 years	
<b>Commander's Flying Experience:</b>	675 hours (of which 176 were on type) Last 90 days - 5 hours Last 28 days - 4 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot and subsequent AAIB enquiries	

**Synopsis**

The pilot made an approach, with a tailwind, to a private strip which had significant uphill slope. At about 50 ft aal, he decided to go around, and intended to selected the flaps from FULL to HALF, but accidentally selected the flaps to UP. The aircraft sank and touched down, ran into obstacles, and sustained substantial damage.

**History of the flight**

The aircraft departed from Oban on a private flight to its base at Northside, a private air strip near Aberdeen. The pilot, who was also the aircraft owner, was familiar with both the aircraft and destination.

The weather was fine with good visibility, no low cloud, and a northerly breeze, and the flight was uneventful until the final approach to the strip. The strip was orientated north/south, 425 m long, and of short mown grass. Telegraph lines ran across the southern end of the strip, and so all takeoffs were to the north and landings to the south. The centre and southern portions of the strip sloped upwards towards the south at an angle of about 25° to the horizontal. A copse, a short distance north of the northern end of the strip, necessitated an 'S' turn on the final approach.

Approaching Northside, the pilot contacted ATC at Aberdeen, and was informed that the surface wind there was 350°/12 kt. The pilot realised that this meant he would have to land with a tailwind, but felt that the shelter offered by the copse, and the upslope of the strip, would allow a safe landing. He decided that if he was not satisfied with his approach, he would go around and divert to another nearby strip.

The aircraft was established on the approach with FULL flap at an IAS of 65 mph (56 kt). The GPS showed a tailwind component of about 8 kt. Following his turn onto the final approach, and at about 50 ft aal, the pilot became unhappy with the aircraft's position, and decided to go around.

The pilot applied full power and established the aircraft in a climb at 70 mph. He reached down with the intention of reducing the flap setting from FULL to HALF, but instead completely retracted the flaps. The aircraft immediately began to sink, tracking over rising ground

towards a windsock. Although the pilot began a turn to avoid the windsock, the aircraft touched down and bounced "violently" before touching down again. The aircraft's right wing struck the windsock and the left wing then struck and demolished the door support structure on a poly tunnel adjacent to the strip. The aircraft ran over a dry stone wall and came to rest.

The pilot and one passenger vacated the aircraft with minor injuries. The rear seat passenger, who was wearing a four-point harness, had sustained a serious back injury and was assisted from the aircraft. There was a petrol leak into the cockpit, but no fire developed.

#### **Aircraft design**

The aircraft was fitted with wing flaps, selected by means of a mechanical lever similar to a car handbrake. A sprung button in the lever end released a ratchet to enable the flaps to be selected from FULL to HALF, or from HALF to UP. There was no baulk to prevent retraction directly from FULL to UP.