

## ACCIDENT

<b>Aircraft Type and Registration:</b>	X' Air 582(1), G-BZLT	
<b>No &amp; Type of Engines:</b>	1 Rotax 582/48-2V piston engine	
<b>Year of Manufacture:</b>	2000	
<b>Date &amp; Time (UTC):</b>	19 March 2011 at 1200 hrs	
<b>Location:</b>	Portadown, Northern Ireland	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 1
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	Front fuselage and nosewheel	
<b>Commander's Licence:</b>	National Private Pilot's Licence	
<b>Commander's Age:</b>	52 years	
<b>Commander's Flying Experience:</b>	83 hours (of which 19 were on type) Last 90 days - 0 hours Last 28 days - 0 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

## Synopsis

Whilst in the cruise at 1,000 ft, the engine suddenly stopped. Following a series of engine restarts and subsequent stoppages, the pilot carried out a forced landing into a grass field. During the rollout, the aircraft's nosewheel dug into soft ground. The aircraft tipped forward and came to rest upside down. The pilot and passenger were uninjured and vacated the aircraft unaided. The cause of the engine failure was not identified.

## History of the flight

The pilot planned to make a local flight, before returning to a private airfield near Portadown, Northern Ireland. The aircraft had been parked in a hangar since its last flight in December 2010. During the pre-flight

inspection, the fuel tank, which contained approximately ten litres of fuel, was uplifted with 20 litres of fuel. The engine was started without incident and as the aircraft had not been flown for several months, the pilot extended his normal period of engine ground running before completing his pre-flight checks, which included a power run. The takeoff appeared normal, and at 1,000 ft, the pilot levelled the aircraft and reduced the engine rpm for the cruise.

Approximately eight minutes later, the engine suddenly stopped. The aircraft was in straight and level flight and the pilot recalled confirming that the fuel selector switch was in the correct position and both engine temperature and pressure indications had been normal.

The pilot trimmed the aircraft for a glide approach before attempting to restart the engine. It restarted almost immediately and the pilot made a shallow 180° turn to position back towards the airfield, which was to the north. The reported wind was from the south at 8 kt. The engine initially operated correctly, responding to throttle commands, but then stopped again. The aircraft was now at about 600 ft. After two further attempts, the engine briefly restarted for about 10 seconds before stopping. Following a further unsuccessful attempt to restart the engine, the pilot looked for an appropriate landing site. The pilot stated that the optimal site was a large grass field directly ahead of the aircraft and, although he would be landing with a tailwind, the field offered the safest possible landing area as there were limited options to the left and right of his track. The

touchdown appeared normal, but after approximately 80 m the aircraft entered an area of soft ground where the nosewheel dug into the ground, tipping the aircraft forward until it came to rest inverted. Both the pilot and passenger were wearing full harnesses and exited the aircraft uninjured. The forward fuselage and nose wheel were damaged.

A post-accident examination of the fuel and engine electrical system revealed no signs of blockage or failure, although the fuel tank was found to contain some small particles of debris. However, it could not be determined if the debris had entered the tank following the accident. The pilot advised that he had not carried out a water drain check of the fuel system during his pre-flight inspection.