

Rutan Varieze, G-BEZE

AAIB Bulletin No: 5/2004	Ref: EW/G2003/12/04	Category: 1.3
Aircraft Type and Registration:	Rutan Varieze, G-BEZE	
No & Type of Engines:	1 Continental O-200-A piston engine	
Year of Manufacture:	1985	
Date & Time (UTC):	17 December 2003 at 1325 hrs	
Location:	Rayleigh, Essex	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - 1 (Minor)	Passengers - N/A
Nature of Damage:	Damaged beyond economic repair	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	44 years	
Commander's Flying Experience:	255 hours (of which 41 were on type)	
	Last 90 days - 7 hours	
	Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The aircraft was diverting to Southend, from its planned destination of Duxford, because the runway at Duxford was closed. The aircraft descended from an altitude of 2,300 feet to 1,000 feet, where cruise power was reapplied. Twenty seconds later, without warning, the engine failed. The pilot selected the other fuel tank, reapplied carburettor heat and cycled the magnetos but was unable to restart the engine. He trimmed the aircraft for its best glide speed and selected a suitable field for a forced landing. Unfortunately the surface of the field was of moist clay and during touchdown the rear landing gear detached from the airframe. The left wing then came into contact with the surface and detached. The aircraft then rotated longitudinally and came to rest inverted.

The pilot, who was wearing a four point harness and suffered only minor injuries, was unable to extricate himself from the cockpit. The cockpit area had remained intact but most of the canopy had disintegrated allowing the airframe to become buried in the soft surface. In order to effect an exit the pilot had to commence digging into the soil at the side of the cockpit. A rescuer who arrived on the scene sometime later was able to assist in the evacuation by lifting the front of the aircraft sufficiently to enable the pilot to escape.

The investigation was unable to establish the cause of the engine failure. Weather conditions at the time of the engine failure however, were CAVOK with a temperature of +9°C and a dewpoint of +3°C. The carburettor icing chart, as depicted in the CAA's General Aviation Safety Sense Leaflet

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No 3A (titled *Winter Flying*), shows that in these conditions serious carburettor icing can occur at any power setting even with a engine that has been warmed during a descent. The pilot reported that he too suspected that carburettor icing could have been the cause of the engine failure.