

Replica SE5A (7/8 scale), G-BKER

AAIB Bulletin No: 7/98 Ref: EW/G98/05/23 Category: 1.3

Aircraft Type and Registration: Replica SE5A (7/8 scale), G-BKER

No & Type of Engines: 1 Rolls Royce Continental O-200-A piston engine

Year of Manufacture: 1987

Date & Time (UTC): 16 May 1998 at 1930 hrs

Location: North Branchal, Renfrewshire

Type of Flight: Display practice

Persons on Board: Crew - 1 - Passengers - None

Injuries: Crew - None - Passengers - N/A

Nature of Damage: Minor damage to the front fuselage

Commander's Licence: Private Pilot's Licence with Night Rating

Commander's Age: 53 years

Commander's Flying Experience: 560 hours (of which 143 were on type)
Last 90 days - 4 hours
Last 28 days - 2 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot was practising aerobatics for a display, at about 1,000 feet agl. After performing a vigorous 'wingover' manoeuvre to the left he immediately initiated a loop. As he pulled back the throttle over the top of the loop, and at low airspeed, the engine faltered and stopped. In the past he had found that restarting the engine in the air required an airspeed of at least 90 kt and, having insufficient height for a restart, he concentrated instead on identifying a suitable field for a forced landing and positioning for an approach into that field.

Unfortunately the most suitable field had a steep slope rising to the west and the wind was from the northeast. He therefore elected to make the landing upslope and with a substantial tailwind component. The touchdown was satisfactory and the pilot assessed that the forced landing had been successful but subsequent examination revealed damage to the forward fuselage.

When the pilot inspected the aircraft after the accident he determined that there was still adequate fuel, about 8 gallons, and the engine turned over satisfactorily. The filters and vents were clear. He considered it most likely that the engine had stopped because of momentary fuel starvation following the 'wingover' manoeuvre, which included a short period of negative g. The slow airspeed over the top of the loop had then caused the engine to stop 'windmilling'.