

No: 10/89 **Ref: EW/G89/06/23** **Category: 1c**

Aircraft Type and Registration: Avro 504 K, G-ADEV

No & Type of Engines: 1 Le Rhone rotary piston engine

Year of Manufacture: 1918

Date and Time (UTC): 25 June 1989 at 1610 hrs

Location: Old Warden Aerodrome, Bedfordshire

Type of Flight: Air Display

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Landing gear and propeller destroyed. Some minor fuselage damage.

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 61 years

Commander's Total Flying Experience: 9,839 hours (of which 2 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot

The aircraft was performing a display comprising gentle manoeuvres and fly-pasts. No engine problems were encountered as the aircraft commenced positioning for a right-hand approach to grass runway 30. However, the pilot realised that the wind had changed and chose to land on runway 22 instead, since the aircraft is very intolerant of a crosswind component on landing.

Whilst re-positioning for a left hand approach to runway 22 the pilot checked operation of the engine "blip" switch. This switch cuts-out the ignition and is used to reduce power in short bursts since the engine will not run satisfactorily at low power settings required for landing. Engine management is also complicated by the need for the pilot to manually balance fuel feed and air mass flow into the engine - there being no carburettor as such. Use of the "blip" switch can inherently lead to overfuelling as ignition is restored and it may be necessary to reduce the fuel feed to prevent fouling.

The pilot has stated that, following the initial take-off power setting, he did not adjust the air or fuel controls. However, having operated the "blip" switch, the engine failed to recover despite diving from approximately 400 feet at 80 mph and adjusting the controls in an attempt to clear the apparent foul.

The change in wind conditions and consequent change in landing direction meant that the pilot was now unable to land back on the airfield and elected to land into wind in a beetroot field. When rounding out for the touchdown the elevator response was minimal, evidently due to the lack of propeller slipstream and the aircraft landed heavily damaging the landing gear and propeller.

The pilot evacuated the aircraft with only superficial injuries having turned off the fuel and magneto.