ACCIDENT

Aircraft Type and Registration:	Yak-52, G-YKYK
No & type of Engines:	1 Ivchenko Vedeneyev M-14P piston engine
Year of Manufacture:	1998
Date & Time (UTC):	4 October 2006 at 1120 hrs
Location:	Stockhall Farm, Ulting, Maldon, Essex
Type of Flight:	Private
Persons on Board:	Crew - 2 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Damage to propeller and trailing edge of flaps
Commander's Licence:	Private Pilot's Licence
Commander's Age:	56 years
Commander's Flying Experience:	653 hours (of which 510 were on type) Last 90 days - 12 hours Last 28 days - 6 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

The aircraft suffered a sudden loss of engine power whilst in the cruise at 1,500 ft. The pilot made a forced landing in a field. Some damage was sustained by the aircraft during the landing but there were no injuries. The loss of power is believed to have been a result of a broken accessory drive within the engine.

History of the flight

The purpose of the flight was to practise formation and tactical fighting manoeuvres with three other similar aircraft. The weather conditions were fine with clear skies, a westerly wind and a surface temperature of 15ºC. The pilot was flying straight and level at 1,500 ft on the way to the intended practice area when the aircraft engine lost power; the propeller slowed but continued to windmill. The pilot handed control of the aircraft to the rear seat pilot whilst he carried out a number of checks within the cockpit in an attempt to recover power. Pumping of the fuel primer gave a short burst of engine power once or twice, but there was no continued response. The pilot resumed control of the aircraft and prepared to make a forced landing; the rear seat pilot made a radio transmission to one of the accompanying aircraft advising of the situation.

The pilot selected a field for the forced landing and lowered the flap. The landing gear remained in the UP position, as recommended in the Pilot's Standard Operating Notes. (On this aircraft type the landing gear does not retract fully when it is UP.) At about 50 ft agl the

pilot selected the magnetos to OFF. The propeller struck the ground in a ploughed field just before the chosen landing field, and the landing gear made contact with the surface in the field margin. The aircraft continued ahead and came to rest some 140 metres into the field. The rear seat pilot turned the fuel OFF while the pilot made a radio transmission to advise the other aircraft of a safe landing, this transmission was not received. Neither pilot was injured in the accident.

Post-accident testing of the aircraft systems and the engine showed that the magneto system was faulty. This appeared to be due to a broken accessory drive shaft within the engine; the precise reason will be determined when the engine is stripped down for overhaul. A driveshaft problem of this nature has not been experienced before with the UK based YAK-52 aircraft.