

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Yak-50, G-IYYK	
<b>No &amp; Type of Engines:</b>	1 Ivchenko Vedeneyev M-14P piston engine	
<b>Year of Manufacture:</b>	1984	
<b>Date &amp; Time (UTC):</b>	4 September 2007 at 1100 hrs	
<b>Location:</b>	Lee-on-Solent, Hampshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Substantial damage to wings, engines, cowlings and fuselage	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	70 years	
<b>Commander's Flying Experience:</b>	1,004 hours (of which 181 were on type) Last 90 days - 20 hours Last 28 days - 2 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

While manoeuvring the aircraft on the ground the pilot accidentally increased engine power; the aircraft moved forward and struck a fuel bowser and an adjacent low wall.

**History of the flight**

The aircraft had landed on Runway 23 and, having cleared the runway, the pilot taxied the aircraft to park on a tarmac area, with no forward obstruction. The chosen area was between a fuel bowser, located behind a low wall, and a hangar. The pilot would normally have parked on an adjacent grass area but this was in the process of being cut and he did not want to obstruct the operation. The engine was running at the normal

idle setting of 45% rpm, and the pilot waited for the air pressure to build up as the long taxi, which included several brake applications, had reduced the pressure to 2.5 bar. Aircraft systems such as engine start, landing gear retraction and wheel braking on the Yak-50 are operated pneumatically by compressed air. Air from an engine driven compressor is stored in two spherical bottles (one main, one for emergency in-flight engine start) which are always charged whilst the engine is running. The wheel brakes are operated by squeezing a lever located on the control stick and steering is achieved by means of rudder pedal deflection which allows air pressure to the left or right brake.

The pilot noted that the air was taking longer than normal to recharge and whilst holding the brakes he closed the cockpit ventilation air valve, located below the instrument panel, to allow the air to recharge more quickly. The pilot considered this was necessary as in the high ambient temperature it was difficult to maintain the air-cooled engine temperature below 160°C. As soon as the air pressure had reached 4 bar, he opened the cockpit air valve and carried out a standard engine run at 65% rpm. During this power increase the brakes held the aircraft stationary as normal. The pilot then released the brakes to apply left rudder and applied a trickle of power. He also operated the brake lever to obtain differential steering in order to turn the aircraft through 180° before shutting down. The aircraft began to turn but then continued straight ahead. The pilot pumped the brake lever without effect and he noted he was moving forward quite quickly despite the throttle being closed.

He reached down, whilst still holding the brake lever to attempt to close the cockpit air valve in order to build up the necessary air pressure for the brakes. The throttle was still at idle power. Realising he was moving towards

the low brick wall that surrounded the fuel bowser, he decided shutting the engine down would have more effect in stopping the aircraft. However, as he moved his hand from the cockpit air switch to the magneto switch, he caught the throttle with the sleeve of his flying suit and in doing so inadvertently applied full power. The aircraft then accelerated towards the low wall. The pilot closed the throttle but by this time the landing gear had passed through a gap in the low wall, the wings mounted the wall and the aircraft hit the cab of the fuel bowser. The aircraft came to rest after the propeller struck the windscreen of the cab. The pilot isolated the fuel and shut down before exiting the aircraft uninjured.

#### **Pilot's report**

In a very comprehensive report the pilot considered that the cause of the accident was the inadvertent power increase which resulted from catching the throttle in the sleeve of his flying suit. He concluded that there may have been an air leak in the landing gear air system, which resulted in the air pressure depleting more quickly than usual and thus causing the loss in braking effectiveness.