

ACCIDENT

Aircraft Type and Registration:	AT-16 Harvard IIB, G-AZSC	
No & Type of Engines:	1 Pratt & Whitney R-1340-AN-1 piston engine	
Year of Manufacture:	1943	
Date & Time (UTC):	22 July 2011 at 1506 hrs	
Location:	1.5 miles from Goodwood Aerodrome, West Sussex	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Propeller, engine, undercarriage up-lock castings	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	55 years	
Commander's Flying Experience:	943 hours (of which 45 were on type) Last 90 days - 4 hours Last 28 days - 1 hour	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

During a high-speed, low-level pass as part of a practice air display, the low fuel pressure warning light illuminated and the engine stopped. A successful gear-up landing was made in a nearby field. A subsequent inspection found no fuel in the tank selected although it was reported that the fuel gauges had each indicated about 30 gallons shortly before the engine had stopped.

History of the flight

During a practice air display, the pilot dived the aircraft from 2,000 ft to 200 ft over the threshold of Runway 32 on runway heading, and reached the planned 'gate' speed of 240 mph. On levelling out and about midway down the runway, the low fuel pressure warning light

illuminated. The pilot used the aircraft's fuel 'wobble pump' to try to restore pressure but this was unsuccessful and the engine cut out shortly afterwards. No attempt was made to change from the left wing main fuel tank in use at the time.

The pilot climbed to increase his height and reduce speed. He lowered the landing gear but the airspeed decayed rapidly such that a forced landing in a crop field directly ahead would have become necessary. He then retracted the gear so that a glide speed of 100 mph could be maintained in order to reach a more suitable field.

The aircraft touched down smoothly, gear up, and stopped well before the field boundary. The uninjured

pilot, who was wearing a full harness, made the aircraft safe before exiting.

A later inspection of the aircraft found no faults with the fuel system and about 14 gallons in the reserve section of the left wing fuel tank. The left wing fuel tank uses an extended standpipe from which to take fuel. The fuel below the top of the standpipe is the reserve supply which can be selected on the fuel selector valve (the other selections are the left tank, right tank and off). The capacity of the reserve is 15.8 gallons

which is included in the reading of the left tank fuel gauge. The pilot stated that the fuel gauges had each indicated 30 gallons prior to the dive. However, the light illuminating the left gauge was not working but the quantity seemed to agree roughly with the usage he was expecting based on the duration of the flight so far, and the duration of the previous flight told to him by the pilot of that flight. The pilot now believes he misread the gauge and that the time he had been told for the previous flight was in fact flight time only.