

Fuji FA-200-180AO, G-KARY

AAIB Bulletin No: 12/2001	Ref: EW/G2001/07/32	Category: 1.3
Aircraft Type and Registration:	Fuji FA-200-180AO, G-KARY	
No & Type of Engines:	1 Lycoming O-360-A5AD piston engine	
Year of Manufacture:	1977	
Date & Time (UTC):	23 July 2001 at 1515 hrs	
Location:	Pristow Green Lane, Norfolk	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Substantial (Aircraft damaged beyond economic repair)	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	54 years	
Commander's Flying Experience:	349 hours (of which 142 were on type)	
	Last 90 days - 3 hours	
	Last 28 days - 1 hour	
Information Source:	Aircraft Accident Report Form submitted by the pilot and telephone conversation with pilot.	

The aircraft lost engine power at approximately 250 feet agl, shortly after take-off from R26 at Tibbenham Airfield. The pilot changed fuel tanks and checked the mixture, magnetos and throttle position. As no improvement in the situation had occurred by the time the aircraft had descended to 150 feet, he determined that a forced landing was inevitable.

The only suitable field landing area nearby was orientated at 90 degrees to the aircraft track and the pilot judged that his height and speed were too low to carry out a turn safely. He therefore landed across the field. The aircraft then rapidly crossed an unfenced road and encountered a ditch. The deceleration as the aircraft came to rest in the ditch was sufficiently severe for the pilot's spectacles to fly off, but the four point harness held him securely and he was uninjured.

The pilot subsequently noted that, as the aircraft was operated by a reasonably large flying group, he had assumed that it had been in regular use. He was not aware that it had been idle for some four weeks before the accident flight. He had nevertheless carried out a comprehensive pre-flight check on arrival at the aircraft, including operating the fuel drains. He had noted a few water globules in the fuel from the starboard tank but no similar evidence in the fuel sample from the port tank. The aircraft was then taxied to the re-fuelling area and shut down. The tanks were replenished and the aircraft was then taxied to the clubhouse area and shut down. Finally the aircraft was taxied to the region of the holding point and the usual pre-departure power checks were carried out, including changing tanks. Thereafter departure was normal until the engine lost power.

When the wrecked aircraft was recovered to the airfield, it was noted that liquid leaking from the region of the engine onto the tarmac looked to be mostly water, accompanied by some slight signs of fuel. It was then recalled that the filler cap on the port tank generally allowed water ingress and considerable rain had fallen during the four weeks that the aircraft was idle. The pilot believes that his slight colour blindness, coupled with the opaque condition of the sample tube, may have masked the fact that it contained pure water when the port tank was sampled. As this was done after the starboard tank, the characteristic smell of fuel lingered around the sample tube.

It must be assumed that considerable water was lying undetected in the port tank but that this did not enter the lines to the engine until the tanks were changed, shortly before take-off. Thereafter, the considerable fuel capacity in the fuel system forward of the selector was consumed before water from the port tank reached the engine. Replenishment of the tank may have stirred up the fuel/water mix in the port tank, thus delaying the point at which the engine was being supplied with water rather than fuel.

The pilot further noted that the edition of the CAA publication General Aviation Safety Information Leaflet (GASIL), produced just after this accident, included guidance on detecting the presence of pure water in a fuel sample. This involved spitting into the suspect sample and looking for the presence of the globule of spit descending to the bottom of the tube. The accident clearly demonstrates the potential benefit of the 'spitting' check to the general aviation community.