AAIB Bulletin No: 12/94 Ref: EW/G94/10/12 Category: 1.3

Aircraft Type and Registration: Piper PA-28-181 Archer II, G-BLAW

No & Type of Engines: 1 Lycoming O-360-A4M piston engine

Year of Manufacture: 1981

**Date & Time (UTC):** 18 October 1994 at 1530 hrs

**Location:** English Channel, about 5 nm south west of

St Catherine's Point, Isle of Wight

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Aircraft sank after ditching

Commander's Licence: Airline Transport Pilot's Licence with Instructor Rating

Commander's Age: 39 years

Commander's Flying Experience: 10,600 hours (of which 250 were on type)

Last 90 days - 194 hours Last 28 days - 70 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

together with data supplied by the SAR units

The flight plan was from Luton to Cherbourg and, having had the aircraft refuelled, the pilot visually checked that both fuel tanks were full. The planned route was from Luton to Woodley NDB, to Southampton, then direct to Cherbourg, and the aircraft took off at about 1445 hrs.

Having passed to the east of Southampton VOR the aircraft flew over Newport on the Isle of Wight to intercept the direct track to Cherbourg. At this stage the pilot turned the fuel booster pump 'ON' and changed fuel tanks. In accordance with normal procedure, he then waited for one minute before switching the pump 'OFF' again and the engine continued to run normally for about five minutes. By that time, when the aircraft was some 5 nm south west of St Catherine's Point at an altitude of 1,500 feet, the engine suddenly lost power for about three seconds before resuming normal running. It immediately repeated this performance but then, after a further five seconds, it again lost power and did not recover, although the propeller continued to rotate. The pilot states that there were no sounds of mechanical distress emanating from the engine and that he had regularly checked for carburettor icing. He therefore selected the original fuel tank and put the electric fuel pump 'ON'. He set the mixture control to full rich from its previously slightly lean position and selected carburettor heat 'ON' but the engine did not re-start.

Whilst initiating a turn towards the nearest land, the pilot transmitted a 'MAYDAY' message on 121.5 MHz which was acknowledged by LATCC. He was able to make a controlled touchdown on the sea, along the swell of a moderate sea state and into wind (120°/15). The touchdown was totally uneventful and the aircraft floated upright, enabling the pilot to climb out onto the wing, fasten and inflate his lifejacket and to lean back into the cockpit to transmit another 'MAYDAY' message, which was also acknowledged. About three minutes later, as the aircraft began to sink, the pilot stepped into the water and moved away. He was unable to inflate his life raft, the gas bottle being apparently empty. The pilot is of the opinion that frequent stowing and removing of the dinghy, depending on its applicability to the aircraft's usage, may have resulted in some careless handling; this has since been rectified at his operation.

The 'MAYDAY' call had been received at 1534 hrs by the LATCC Distress and Diversion Cell and was passed to the RCC at Plymouth. The Coastguard SAR helicopter from Lee-on-Solent was tasked at 1540 hrs and, at 1600 hrs, having accomplished a successful winch recovery of the pilot, took him to the Haslar hospital at Gosport, where he was treated for hypothermia and released later that evening. The SAR helicopter recorded on scene weather conditions as overcast cloud at 1,300 feet and air temperature +10°C. The sea temperature would have been close to this value.

The aircraft has not been recovered to date and so examination of the engine and fuel system has not been possible.

The engine had been insulfed in Mirch 1989 following a manufacturer's overteast. At the mark of the accident it had accumulated 359 operating hours. In the last three years the enemal had been breather during the winter without engine inhibition. Some time prior to the accident flight, when the engine was started following a six week period of inactivity, it suffered durings from sticking valves and three cylinders had to be replaced. When the engine was first surred, following repair, on the presence the day of the accident it ran normally to begin with but then stopped. Investigation revealed that there was a leak at the fuel tilter bowl. This was corrected but during a pre-flight chark at excessive may drop' was detected. A chafed HT lead was found and after this was rectified a successful flight was carried out. After the flight the engine and fuel pipes were examined for leaks but more were

Later in the day the owner again prepared the aircraft for flight. Following engine start and favi he switched fuel tanks as part of the normal procedure before earrying out his power charles and selected the electrical fuel pump to 'OFF' as required by the pre-takeoff obecklist. During the take off ran, as the was about to rotate the aircraft to lift-off, be fett a slight jolt. Thinking that there was a problem