

No: 10/90 **Ref: EW/G90/03/09** **Category: 1c**

Aircraft Type and Registration: Reims Cessna F177RG, G-BFHK

No & Type of Engines: 1 Lycoming IO-360-A1B6D piston engine

Year of Manufacture: 1977

Date and Time (UTC): 17 March 1990 at 0839 hrs

Location: In sea 15nm SE of Ramsgate, Kent

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Aircraft lost in sea

Commander's Licence: Private Pilot's Licence with IMC rating

Commander's Age: 47 years

Commander's Total Flying Experience: 725 hours (of which 242 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot, engineering records and telephone inquiries

The pilot reports that in November 1989 the engine had suffered a back-fire during pre-take-off power checks. Following the rectification work described below the engine performed satisfactorily during four flights carried out in January before the outbound flight to Ostend on 13 March 1990.

The engineering records show that in November a reported problem of high engine temperature had been addressed by restoring the engine oil level from a very low condition. The exhaust gas temperature (EGT) probe had been replaced to correct anomalies in EGT indication, cylinder compression had been checked and the propeller governor oil return pipe was found to be chafed and was replaced.

In December, in two separate programmes of work the sparking plugs, magnetos and ignition timing were checked, new HT leads were fitted and the fuel injector sent to a specialist company for bench testing. It was found that the wrong type of O-rings had been fitted to the venturi although no leaks had been actually detected. Correct O-rings were fitted and the unit's calibration checked. The fuel injector was refitted to the engine and a ground run was carried out satisfactorily.

During the flight to Ostend on 13 March, just before he was cleared to descend for landing, the pilot

noticed a slight engine miss-fire. The engine continued to run normally and during a ground run after landing it was satisfactory at high power but was slightly uneven at between 1200 and 1400 RPM. A local engineering company was asked to check the engine and fit a new set of plugs. A subsequent ground run was satisfactory as were the pre-flight checks prior to leaving Ostend on 17 March and initially the engine performed normally in flight.

At about 20 nm out from Ostend at 4500 feet the pilot noticed a slight loss of power, rising oil temperature, falling oil pressure and a higher than normal EGT. Following contact with Kent Radar he reduced power, returned the mixture control to rich, opened the cowl flaps and started a long descent to 2500 feet. Pressure and temperatures returned to normal and at 2500 feet he set power to 22 ins/2200 RPM to divert to Manston at a low power setting. Following an enquiry from ATC the pilot confirmed that he was declaring an emergency. Although pressures and temperatures remained normal the engine continued to lose power. The pilot tried various changes in throttle, mixture and fuel pump settings but no improvement was achieved and the aircraft continued to descend until the pilot was forced to ditch the aircraft at a position 15 nm southeast of Ramsgate.

The ditching, parallel to the wave crests, was smooth. The wheels were up, full flap selected and the aircraft close to the stall. The wind appeared to be as forecast at 190°/10 kts and the waves were estimated as 1 foot high. Weather was CAVOK, air temperature + 10°C and visibility 4 nm in haze.

The pilot was wearing a lifejacket. He had difficulty opening the door even when water levels inside and out appeared to be equal and he was unable to get his dinghy out of the aircraft. The ditching occurred just after 08.39 UTC, the Search and Rescue services had been alerted and, with the assistance of the pilot of another light aircraft who was vectored into the area and probably caught sight of the aircraft before it sank, the pilot was spotted in the water at 09.04 UTC, rescued and flown to hospital. The aircraft has not been recovered.