ACCIDENT

Aircraft Type and Registration: Piper PA-32-300, G-WINS

No & Type of Engines: 1 Lycoming IO-540-K1A5 piston engine

Year of Manufacture: 1976 (Serial no: 32-7640065)

Date & Time (UTC): 3 November 2022 at 1350 hrs

Location: Approximately 7 nm SE of Jersey Airport

Type of Flight: Training

Persons on Board: Crew - 2 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Aircraft sank after ditching

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 46 years

Commander's Flying Experience: 6,973 hours (of which 1,073 were on type)

Last 90 days - 133 hours Last 28 days - 64 hours

Information Source: Aircraft Accident Report Form submitted by the

pilot and additional enquiries made by the AAIB

Synopsis

The aircraft ditched south-east of Jersey after the engine lost power. Both pilots were uninjured and were rescued from their life raft by the Royal National Lifeboat Institution (RNLI). The aircraft sank and was not recovered so the cause of the loss of power is unknown.

History of the flight

G-WINS departed Jersey on an instrument training flight for a PPL holder who was a member of the syndicate that owned the aircraft. No anomalies were found during the pre-flight checks and it was reported that a visual assessment of the fuel tanks indicated that there was approximately 64 USG of fuel onboard¹. The pilots estimated that this was adequate for 3.5 to 4 hours duration, which was sufficient for the planned flight of 1 hour 15 minutes.

ATC cleared the aircraft to operate in the training area to the south and south-east of Jersey between an altitude of 2,000 and 5,000 ft. The final part of an instrument scanning exercise was a descent from 4,000 ft to 2,000 ft for a Required Navigation Performance (RNP) approach to Runway 26 at Jersey. The pilot-in-command said that the descent was conducted with the power slightly above idle with an airspeed of approximately 120 kt and

Footnote

G-WINS was equipped with additional long-range fuel tanks. The aircraft had a maximum fuel capacity of 84 USG (approximately 318 litres)

a rate of descent of 700 ft/min. Everything seemed normal as they levelled off at 2,000 ft with 23" manifold pressure and 2,300 rpm, but after about 30 seconds the engine lost power and the manifold pressure reduced to less than 10". They described the engine sound to be abnormal, but not rough-running.

They tried to rectify the problem by switching the electric fuel pump on, selecting alternative fuel tanks, selecting alternate air, and cycling the magneto switches. None of these actions had any effect so the pilot-in-command took control in a descent to maintain 75 kt. They tried adjusting the mixture (which had been fully rich) and different rpm selections but this had no effect. When the power lever was brought back towards the idle stop there was a slight increase in power and the manifold pressure increased to approximately 13", but when the power lever was advanced the power reduced again, and the manifold pressure dropped to 10". Unable to maintain altitude it was apparent that they would have to ditch.

As the aircraft descended, ATC reminded the pilot of his clearance, and he asked the controller to standby because they had an engine problem. Almost immediately after this the pilot declared a PAN and ATC confirmed the nature of the problem and the number of people on board. They said that the approximate position of the aircraft was known, and they were alerting the emergency services.

The PF asked the syndicate member to check that the life raft and his 'grab' bag, which contained a personal locator beacon (PLB), were readily accessible on the rear seats; these had been pre-positioned behind the forward seats prior to the flight. Both pilots were already wearing life jackets and three-point harnesses. The PF turned the aircraft into wind to reduce the groundspeed and he selected two stages of flap. The syndicate pilot transmitted that they were ditching, and ATC confirmed receipt of this transmission and said that the emergency services had been notified.

The PF flared the aircraft for the landing and both pilots said that the stall warner was sounding when the aircraft ditched. One described that water splashed over the windscreen but the other believed that the nose of the aircraft might have submerged before resurfacing. Neither were injured and the aircraft remained upright with the cockpit water-tight whilst they switched off the electrical power. They exited onto the starboard wing and inflated their life jackets before deploying and entering their life raft as the aircraft started to sink. They activated the PLB when they were in the life raft and observed that the aircraft looked intact. The only item of debris seen in the water was probably one of the wheel spats and the pilot-in-command estimated that the aircraft was submerged about three minutes after they ditched.

The syndicate pilot tried to send a text message using his mobile phone (which was wet), but there was no network coverage. The pilots were rescued by the Jersey Lifeboat about an hour after the aircraft ditched.

Cause of the power loss

The aircraft was not recovered and there were no photographs or recordings from onboard the flight. Records indicated that this was the second flight since the aircraft was refuelled

on 15 October 2022, when 176 litres of fuel were uploaded. The aircraft logbook showed that the flight that was conducted immediately after refuelling was approximately one hour and on the day the accident occurred, the aircraft had been airborne for approximately 30 minutes. The possibility of contaminated fuel is considered unlikely, but the cause of the power loss was not established.

AAIB comment

This accident highlights the importance of prior planning, continuing to 'fly the aircraft', and carrying appropriate safety equipment when flying over water. CAA Safety Sense Leaflet 21² provides guidance to GA pilots regarding ditching light aircraft on water.

Footnote

² CAA Safety Sense Leaflet 21 – *Ditching Light Aircraft on Water* SafetySense_21-Ditching.pdf (caa.co.uk) (last accessed 4 January 2023)