

No: 10/89

Ref: EW/C1118

Category: 1c

**Aircraft Type
and Registration:**

Beech C23 Musketeer, G-AYPB

No & Type of Engines:

1 Lycoming O-360-A4G piston engine

Year of Manufacture:

1971

Date and Time (UTC):

20 June 1989 at 1032 hrs

Location:

Langney Point, Eastbourne, Sussex

Type of Flight:

Private (pleasure)

Persons on Board:

Crew -1

Passengers - 2

Injuries:

Crew -1 (Minor)

Passengers - 1 (Minor)

1 (Serious)

Nature of Damage:

Aircraft destroyed

Commander's Licence:

Private Pilot's Licence

Commander's Age:

54 years

**Commander's Total
Flying Experience:**

165 hours (of which 20 were on type)

Information Source:

AAIB Field Investigation

G-AYPB took-off from Shoreham Airport, Sussex at 1004 hrs and flew easterly towards Eastbourne, following the coastline. The purpose of the flight was to carry out some photography in the vicinity of Langney Point and to achieve this the pilot climbed to 2000 feet and circled the area. He allowed the aircraft to gradually drift down to 1300 feet and, shortly before 1030 hrs, the Shoreham Approach controller asked him for his position which was given as the Langney area at 1300 feet. The aircraft then turned south in order to fly along the coast. The pilot closed the throttle, selected carburettor air to HOT and descended. On reaching 1000 feet he selected carburettor air to COLD and opened the throttle. He reported that there was no response from the engine and the aircraft started to descend. He elected not to ditch the aircraft and a landing up the beach was not practical because there were only a few metres of steeply sloping shingle above the tide line. A landing along the beach was not possible because of the closely spaced groynes. The only suitable area appeared to be wasteland, alongside the beach, to the west of his position. During the final stages of the approach, the aircraft banked right to gain the landing area but the right wing tip impacted the ground and the wing struck a boxed boat winch. This decelerated the aircraft rapidly, and turned it through 90°. It then collided with a number of wooden boats, turning one over and moving another sideways before coming to rest. There was no fire and the occupants were rescued, by fishermen working nearby, and taken to the local hospital by helicopter and ambulance.

Meteorological reports for Shoreham Airport showed that the temperature was 25°C and the dew point 15°C, a condition under which severe carburettor icing could occur at low power settings.

An examination of the aircraft revealed that the engine and carburettor heat controls were correctly connected, although damage sustained by the carburettor air box made it impossible to assess the range of movement of the alternate air valve.

A strip examination of the engine revealed no evidence of any defect which could have accounted for loss of power. Examination and testing of the two magnetos revealed that although one of the units was in poor general condition both were able to function correctly throughout a half-hour run on a test-bench.

Strip examination of the carburettor revealed no evidence of any internal defect. It was noted, however, that the wirelocking for the air metering pin plug did not have a seal. Such a seal is normally installed at initial assembly or overhaul of the carburettor, and the plug should not require any disturbance between carburettor overhaul periods since the setting of the air metering pin is unique for any model of carburettor.

The plug was therefore removed and the setting of the air metering pin checked with the special M-94 gauge (used for initial setting-up of the carburettor type). It was found to be set at 5½ turns in from the flush datum position on the M-94 gauge, whereas the correct setting is 2¼ turns in from the datum position. Although the incorrect setting would not effect performance of the engine at high power settings, it would affect the mixture strength during operation in flight at low power settings and at idle. During such operation in conditions of high humidity, a combination of the incorrect setting and a certain amount of carburettor icing present could be expected to have considerable effect on the mixture strength, possibly creating a condition in which a complete loss of power could occur in a power-off descent.

It was not possible to establish when the air metering pin was last disturbed.