No: 4/85 **Ref: EW/C906**

Aircraft type and registration:	Gulfstream American GA-7 'Cougar' G-ECCO (light twin engined fixed wing aircraft)	
Year of Manufacture:	1979	
Date and time (GMT):	24 February 1985 at 1345 hrs	
Location:	In the sea off Ventnor, Isle of Wight	
Type of flight:	Private	
Persons on board:	Crew — 1	Passengers — 3
Injuries:	Crew — None	Passengers — 1 fatal, 2 serious
Nature of damage:	Aircraft not recovered	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	38 years	
Commander's total flying experience:	Approximately 161 (of which 7 were on type)	
Information Source:	AIB field investigation.	

The pilot intended to fly from Eastleigh (Southampton) Airport on a VFR flight round the Isle of Wight to return to Eastleigh and had been authorised by the flying school for a one hour local flight. He was accompanied by his wife and two year old daughter who occupied the rear seats and a friend who occupied the front, right-hand seat. The pilot had recently successfully undertaken an IMC rating course and a twin conversion course at Eastleigh using the same aircraft, G-ECCO. After take-off at 1320 hrs he flew down the west Solent at 1500 feet amsl to the Needles' Lighthouse. At this point he switched on the auxiliary fuel pumps and descended, initially to 250 feet and then to between 100 and 150 feet, flying at 140 kt and following the coastline about 1 mile offshore to St Catherine's Point.

After rounding St Catherine's Point at a height below the level of the cliff tops but above that of the lighthouse (140 feet), the pilot's friend referred to an aeronautical chart following a request from the pilot to find the frequency of the radio beacon on the Nab Tower. The pilot also glanced briefly at the chart and at that moment the aircraft hit the sea and then settled nose down as the cockpit rapidly filled with water. The pilot was aware of a yaw to the right and pressure on the left rudder pedal immediately prior to the impact. The left side cockpit window had become detached and the pilot climbed through on to the wing. The pilot's daughter was by now floating in the rear of the cabin — it is not known how her seatbelt became released — and the friend handed her out to the pilot. Both men tried to pull the pilot's wife free, but were unable to do so before the aircraft sank. The two men then started to swim towards the shore, towing the child.

Witness estimates for the time taken from impact to sinking have varied from 30 to 90 seconds, the passengers did not have time to reach the lifejackets stowed at the rear of the cabin.

Emergency telephone calls from members of the public alerted Police and Coastguard services, and a Search and Rescue helicopter was launched from Lee-on-the-Solent. Local fishermen, who were also Auxiliary Coastguards and in radio communication with the Coastguard Maritime Rescue Sub-Centre (MRSC), launched their boats from the beach and reached the survivors about ten minutes after the impact. The SAR Helicopter arrived at the same time and the child was flown to the Royal Naval Hospital at Haslar and placed in intensive care. The two men were landed at Ventnor and treated for hypothermia, the passenger was later detained in hospital with back and ankle fractures.

Weather reports indicate that after early morning fog over the land had burned off, there was some haze in the Solent but that south of the Isle of Wight the visibility was generally better. When the pilot descended after turning at the Needles he had a clear horizon. The Keeper at St Catherine's Lighthouse reported a visibility of 6 nm, and the Coastguards involved in the rescue estimated the sea-level visibility as about 3 nm. It is possible that the pilot encountered an area of reduced visibility after rounding St Catherine's Point. The sea state was reported as a slight swell with small wavelets caused by the light easterly wind.

Comment

A pilot relies heavily on visual cues when low flying, and degradation of the visible horizon can cause him to believe that he is higher than he really is. There is very little margin of safety when low flying to allow for an error of judgement, momentary distraction or equipment failure.