

**AAIB Bulletin No: 1/96**

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**Category: 1.4**

<b>Aircraft Type and Registration:</b>	Chaser S 447, G-MVDO	
<b>No &amp; Type of Engines:</b>	1 Rotax 447 piston engine	
<b>Year of Manufacture:</b>	1988	
<b>Date &amp; Time (UTC):</b>	1 July 1995 at 0706 hrs	
<b>Location:</b>	Glan-y-môr Elias beach, Llanfairfechan, North Wales	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - Fatal	Passengers - N/A
<b>Nature of Damage:</b>	Aircraft destroyed	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	59 years	
<b>Commander's Flying Experience:</b>	277 hours (of which 225 were on type) Last 90 days - 39 hours Last 28 days - 25 hours	
<b>Information Source:</b>	AAIB Field Investigation	

The pilot took off from Waverton near Chester at approximately 0620 hrs accompanied by a friend who was piloting another microlight aircraft. The pilots' intention was to fly along the coast at a height of approximately 1,500 feet to Caernarvon where they would land and refuel their aircraft before returning to Waverton. On departure the weather was overcast with light winds and good visibility but on passing Conwy the cloud started to break-up and disperse with good visibility and a south-easterly wind blowing off the mountains to the left of track. As he passed Penmaenmawr, the pilot radioed to his colleague who at this stage was flying some 2 to 2<sup>1</sup>/<sub>2</sub> miles behind him, that the air was calmer ahead. The colleague later confirmed that he had encountered some turbulence when he reached this area. This was the last radio transmission made by the pilot of G-MVDO which had crashed onto Glan-y-môr Elias beach.

The pilot of the second microlight aircraft flew over the accident scene without seeing the crashed aircraft and continued to fly towards Bangor whilst attempting to contact his colleague on the radio. Having reached Bangor without being able to re-establish contact, he turned and flew back towards Penmaenmawr. As he approached Llanfairfechan he saw a red object on the sands which he was able to identify as his colleague's microlight aircraft.

An eyewitness reported that, whilst she was walking near the beach at Llanfairfechan at approximately 0700 hrs, she had seen what she had initially assumed to be a bird and subsequently decided was a kite which had folded its wings together and descended, in a manner similar to a kite, to make a steep approach and landing on the sands. This was later confirmed as being the crashed microlight aircraft.

The accident site was an area of hard wet sand that was part of a flat beach that lay between the high and low water mark. Because of the incoming tide, the wreckage was removed to the safety of the local Police station prior to the arrival of the AAIB Inspectors. During an examination of the aircraft at the Police station there was no evidence of fuel being present but it was later confirmed by the pilot's colleague that the aircraft had left Waverton with a full tank of fuel. The pilot had not at any time reported on the radio that he was short of fuel.

In conjunction with the aircraft manufacturer, a technical representative of the British Microlight Aircraft Association and two materials specialists, the wreckage was closely examined. No fault was found with the aircraft structure and all the failures of the airframe and the fabric wing were consistent with impact damage. There was no evidence of an airborne failure of the aircraft's structure or the wing fabric. It was established that at impact the engine was producing a high degree of power and that the wings were intact and in their correct positions in relation to the keel centre section of the aircraft. The rigging of the wings was found to be within the aircraft manufacturer's specified limitations.

The pilot's helmet was found unfastened and some distance from the wreckage. His colleague, who was the last person to see him alive clearly remembers him fastening his helmet prior to takeoff. The RAF School of Aviation Medicine were asked to examine the helmet with a view to ascertaining how it came to be unfastened and how far it may have fallen. It was concluded that the helmet came off at impact and then rolled to the position where it was found. The helmet had been internally modified to incorporate a radio microphone and these modifications were such as to reduce the ability of the helmet to protect the wearer in the case of impact. Nothing was found during post-mortem examination of the pilot which may have contributed to the cause of the accident.

In view of the reports from both the pilot and his colleague of air turbulence in the region of Llanfairfechan at the time of the accident, a meteorological aftercast was obtained which confirmed that the wind at the time would have been south-easterly and blowing off the hills. This would have caused some turbulence over the beach but the colleague reported little difficulty in coping with the turbulence he encountered. Shortly before the accident the pilot had radioed that he had reached an area of smooth air. There is little evidence to suggest that a meteorological phenomenon of sufficient intensity had been encountered to cause the pilot to lose control of his aircraft.