No: 4/85 Ref: EW/C898/01

Aircraft type and registration: Piper PA23 Aztec D-IMOT (light twin engined aircraft)

Year of Manufacture: 1961

Date and time (GMT):

2 December 1984 at 1910 hrs

Location:

Newcastle Airport

Type of flight:

Private

Persons on board:

Crew — 1

Passengers — None

Injuries:

Crew - 1 (fatal)

Passengers - None

Nature of damage:

Aircraft destroyed

Commander's Licence:

No valid licence

Commander's Age:

33 years

Commander's total flying

experience:

9465 hours claimed (of which approximately 95 hours were on the

accident aircraft)

Information Source:

AIB Field Investigation

The aircraft was on a flight from Landshut (near Munich) to the USA with Newcastle as the first intended point of landing. London Air Traffic Control Centre had passed the Newcastle 1750 hrs weather to the aircraft as it was in transit over the North Sea. This was 5/8 stratus at 500 feet and 4500 metres visibility. Initial contact with Newcastle Approach was made shortly before 1849 hrs when the aircraft was 45 miles south east of the airport. The pilot was informed that radar vectors would be given to an ILS for runway 07. He was also passed the latest weather (1850 hrs) which had deteriorated to 2/8 stratus at 100 feet, 5/8 stratus at 500 feet, 1000 metres visibility and a Runway Visual Range in excess of 1100 metres. After the pilot had confirmed that he wished to land with his altimeter set to QNH, he was given the threshold elevation of 263 feet for runway 07 and the QNH of 1007 mb. Radar vectors routed the aircraft south of the airfield at a height of 2500 feet. There was a certain amount of difficulty with the language and on several occasions the pilot (who was of Austrian nationality) asked for messages to be repeated.

Just after 1906 hrs the controller instructed the aircraft to steer 030° to intercept the localiser. The pilot questioned this and was immediately given a revised heading of 040° and advised that his range was 7½ miles. This instruction was acknowledged and the aircraft was observed by the controller to fly on this heading and pass through the extended centreline without turning. The controller therefore asked him 'do you have the ILS' to which the pilot replied 'negative'. The pilot was instructed to turn right onto 120°. Again he questioned the heading, which the controller confirmed and also instructed the pilot to descend to 1000 feet on the QNH. At this point the pilot asked 'is the ILS frequency of 110.50 correct' and the controller gave him the correct frequency of 111.50, which was acknowledged.

At 1908:10 hrs, when the aircraft was just over 4 miles from touchdown, the pilot was told that he was closing the centreline from the left and was instructed to turn onto 080°. He called established on the localiser 40 seconds later, and the controller informed the pilot that he was 2¾ miles from touchdown. He was cleared to descend to 650 feet 'and further with the glide'.

The aircraft then began to drift to the right of the centreline and when the controller asked the pilot if he had the localiser he received the reply 'oscar tango with the localiser'. During this exchange the aircraft continued to drift to the right and the controller advised the pilot of this and instructed him to overshoot by climbing on runway heading 070° to 2500 feet. These instructions were repeated by the pilot at 1909:35 hrs and this was the last transmission from the aircraft. It was not possible to determine the exact time of impact, but the time interval between the controller's instruction to descend to 1000 feet (from 2500 feet) and the impact was approximately 2 minutes and 5 seconds.

Immediately following the accident the ILS was withdrawn from service as a standard precaution. A routine calibration had been carried out two weeks previously and the ILS equipment was satisfactory. Ground testing after the accident showed that the localiser was radiating normally. Subsequent aircraft carrying out Surveillance Radar Approaches to runway 07 also reported that the ILS was giving satisfactory indications. The ILS was declared serviceable and returned to service later on the same evening.

The first people on the scene of the accident reported thick fog, and the 1920 hrs Newcastle weather recorded

200 metres visibility in fog with the runway visual range in excess of 1100 metres.

Examination of the accident site, one mile short of the runway and half a mile right of the extended centreline at a height of approximately 240 feet AMSL, showed that the aircraft was in the landing configuration on a heading of 060°M at an estimated speed of 150 kt. It impacted violently in a nose down and slightly left wing low attitude leaving a plan outline of its shape on the ground. It bounced for 120 yards and passed inverted through hedges bordering a road and slid for a further 100 yards coming to rest with the cockpit and forward fuselage under the centre section and wing. There was no fire but the pilot was killed instantly in the impact.

Inspection of the wreckage showed that, according to the conditions of the propellers, both engines were developing a substantial degree of power at the moment of impact. No evidence was found to suggest any preimpact defect or malfunction in the airframe, flying controls, or engines. The ILS receiver was found set to the correct frequency of 111.5 MHz.

The remains of a military en-route document of 1980 vintage was recovered from the wreckage. This listed the Newcastle ILS frequency as 110.5 MHz and the same frequency was also written in pencil on the flight log for the accident flight. The frequency of the Newcastle ILS was changed from 110.5 MHz to 111.5 MHz in January 1982. No runway approach charts for Newcastle were found in the wreckage.

A German Private Pilot's Licence, including an instrument rating, in the name of the pilot and claiming validity until 17 August 1985 was recovered from the wreckage. This document was subsequently shown to be a forgery. The pilot had originally held a German PPL but this had expired and at no time had he held an instrument rating. Inquiries also revealed that he did not hold either an Austrian or an American pilot's licence.