No: 9/89 **Ref: EW/C1120/01** **Category: 2c**

Aircraft Type and Registration:	Air Command Autogyro (assembled from a kit) unregistered
No & Type of Engines:	1 Rotax 532 piston engine
Year of Manufacture:	1989
Date and Time (UTC):	24 June 1989 at 1730 hrs
Location:	Thetford, Norfolk
Type of Flight:	Private (pleasure)
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - 1 (Fatal) Passengers - N/A
Nature of Damage:	Aircraft destroyed
Commander's Licence:	None
Commander's Age:	49 Years
Commander's Total Flying Experience:	1.30 hrs dual on a weight-shift microlight
Information Source:	AAIB Field Investigation

On 27 January 1989 the pilot had a 20 minute trial flight in a two-seat gyro-copter during which he handled the controls for about 5 minutes in straight and level flight. He then purchased an Air Command in kit form which he took away that day.

In the documentation provided by the kit supplier were forms enabling the owner to register the aircraft with the Civil Aviation Authority and a summary of the requirements for the issue of an appropriate flying licence. A video produced by the aircraft manufacturer and known to be in the possession of the pilot stressed the need for proper training before attempting to fly the aircraft. Some 3 years before the accident the pilot had flown about 1 hour 30 minutes in a dual-seat microlight aircraft. He had received no other pilot training.

On 26 February 1989 the pilot attempted to fly his aircraft from a public park but crashed on take-off. The aircraft sustained considerable damage but the pilot was uninjured. At the time of this accident, the aircraft was unregistered, had not been inspected by a qualified engineer and did not have a Permit to Fly. The pilot had not undertaken any further flight training and was unlicensed.

On 24 June 1989 having repaired his aircraft, the pilot went to the public park where he had had

his first accident and assembled his aircraft. The weather was fine with a southerly surface wind of about 8 kt. At about 18.30 hrs the pilot taxied his aircraft to the far end of the park and was seen to spin-up the rotor in preparation for take-off. The take-off run was made on a heading of 115°M. After a ground roll of about 70 metres, the aircraft rotated rapidly to a very high nose attitude and leaped into the air while yawing rapidly to the left. On reaching a height of about 30 feet, the aircraft levelled and regained its original heading before entering a series of violent pitching manoeuvres, rolling rapidly to the right and crashing into a school playground. The time from rotation to impact was 8 seconds.

The aircraft crashed on its right side with a rotor bank angle of approximately 85° from the horizontal. Witness reports and the sound track of a video film taken of the sequence indicate that the engine was under power throughout the flight; this was further confirmed by the damage to the propeller blades.

There was no fire but the pilot sustained serious injuries from which he died the next day. The post-mortem examination revealed no factors that could have contributed to the accident.

Examination of the aircraft showed that it had been repaired in an unsatisfactory and makeshift fashion following the first accident. In particular, one of the repairs - welding of the threaded section of an eye-end in each of the two flight control rods - was of such a standard that it could have led to a subsequent failure. However, these repairs were not a factor and no pre-impact defect was found which could have contributed to the accident.