AAIB Bulletin No: 11/95 Ref: EW/G95/07/23 Category: 1.3

Aircraft Type and Registration: CEA DR400/160 Chevalier, G-TUKE

No & Type of Engines: 1 Lycoming O-320-D2A piston engine

Year of Manufacture: 1981

Date & Time (UTC): 30 July 1995 at 0900 hrs

Location: Rochester Airport, Kent

Type of Flight: Private

Persons on Board: - 21091022011 Crew - 1 | - World Passengers - 3 | Passen

Injuries: AM - 2199119326 Crew - None Passengers - None

Nature of Damage: We had been used an Port wing detached and landing gear collapsed in the second se

Commander's Licence: Private Pilot's Licence with Night Rating

Commander's Age: 52 years

Commander's Flying Experience: 217 hours (of which 11 were on type)

Last 90 days - 13 hours Last 28 days - 5 hours

Information Source: Aircraft Accident Report Form and letter submitted by

the pilot

The weather at Rochester was fine with no wind, a temperature of 29°C and a QFE of 1003 HPa. Grass Runway 34 was in use which was dry; the take-off run available was 966 metres.

The pilot had planned a flight to Guernsey in formation with three other Robin DR400 aircraft. G-TUKE was well-laden but within the aircraft's maximum weight limit. After starting the engine the pilot carried out engine power checks and taxied the aircraft to the assembly area where he carried out pre-takeoff checks from memory including the lowering of one stage of flap. After waiting a few minutes the pilot discovered that the other aircraft were not yet ready to taxi so he shut down the engine. Soon afterwards the other aircraft appeared and G-TUKE's pilot started the engine and taxied with them to the holding point. There he repeated the engine power checks and repeated the pre-takeoff checks including the inadvertent lowering of another stage of flap resulting in full flap deployment.

The four aircraft lined up on the runway with G-TUKE positioned some 15 to 20 feet behind and to the right of the lead aircraft. The aircraft took off with G-TUKE formatting approximately 15 to 20 feet behind and to the right of the leader. During the ground roll everything was normal until 60 kt

when the pilot had difficulty in getting airborne; the aircraft felt sluggish and heavy. At about 30 feet above the ground the aircraft's right wing suddenly dropped steeply; the pilot applied full left aileron and left rudder to raise the wing whereupon the right wing dropped in a similar fashion. Using aileron and rudder the pilot managed to regain wings-level once more before closing the throttle and landing on the mainwheels whilst tracking some 30° off the runway direction. He was unable immediately to locate the wheelbrake lever and the aircraft struck the airport boundary fence with its left wingtip at about 20 kt. The impact slewed the aircraft to a halt and the occupants were able to leave it without assistance.

The pilot attributed his mistake to the fact that he attempted to remain current on four aircraft types and, of the four, he flew the Robin least. He was more familiar with the PA-28 where the selection of take-off flap requires much greater travel of the operating lever than in the Robin. He also explained that he could not find the wheelbrake lever in the Robin without looking inside at the time when the view outside was becoming increasingly compelling. Since the accident the pilot has decided to spread his average of 25 hours flying per year over just two types.

The AAIB noted that the pilot's experience and training in the techniques of close formation flying was minimal.

tunway 03, was levelled off at 2,500 feet attitude fairfield 429 feet and by manned for straight and evel flight without any problems. Following at exchange with ATC the pilot propared to set course from overhead the field. The arcraft was turned onto roughly 120° whitst overhead a local reservoir and resumed straight and level flight with the air field anead. The pilot then heard is noise similar to a ing-pall can being opened" and became aware of its hot smell". Airspeel was then observed to be increasing at an altitude of 2,400 feet. The column was pulled back to raise the mose and roductions are increasing with the ASI needle on the edge of the green sector (135 kd leeplite a power reduction, and the aircraft did not pitch up. The pilot called the tower and reported in couble' and was told to try to make the airfield, which was very close. In an effort to avoid the diffield buildings the aircraft was banked to the right at low level.