

AAIB Bulletin No: 10/93

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Category: 1.3

Aircraft Type and Registration: Rans S-10 Sakota, G-BTKS

No & Type of Engines: 1 Rotax 532 piston engine

Year of Manufacture: 1991

Date & Time (UTC): 19 August 1993 at 1615 hrs

Location: Near Inch Airstrip, Grampian region

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - Minor Passengers - N/A

Nature of Damage: Severe, beyond economical repair

Commander's Licence: Private Pilot's Licence (A) and
Air Transport Pilot's Licence (H)

Commander's Age: 32 years

Commander's Flying Experience: 3,470 hours (42 on type and 295 fixed wing)
Last 90 days - 166 hours
Last 28 days - 40 hours

Information Source: Aircraft Accident Report Form submitted by the pilot and
AAIB phone inquiries

During climb out from Inch Airstrip the pilot initiated a practice engine failure, at about 500 feet agl. The weather was good, with the estimated wind at less than 5 kt. The throttle was retarded to idle, the aircraft was pitched nose down and a right turn was commenced to position for the selected area. During the turn, at about 350 feet agl, a sudden wing drop occurred, accompanied by a pitch down and a dramatic increase in the rate of descent. The aircraft struck the ground in a crop field about 300 metres outside the airstrip boundary.

The landing gear legs were torn off and the forward fuselage and both wings were severely damaged. The left fuel tank broke free but remained intact. The pilot sustained a broken bone in his face and his wooden seat broke in two but he was wearing a full harness, which held, and he was able to evacuate without difficulty. There was no fire. The pilot believed that his facial injury probably resulted from impact with a radio mounted on a bracing strut running diagonally across the left forward corner of the cockpit, and that its installation in this position represented an unnecessary hazard.

The Rans S-10 Sakota is a two seat kit-built mid-wing monoplane. The stalling speed with flaps down and power off in 1g flight is listed as 33 kt. In a very open report the pilot assesses the cause of the accident as inadequate speed assessment resulting in a stall in the turn from which there was little time to recover. He believes that the local terrain, approaching rising ground, may have influenced his judgement of the aircraft's pitch attitude and hence glide speed and that, while he did not manoeuvre hard, more gentle handling close to the ground would have been appropriate in retrospect. In common with many aircraft of this class the Sakota has no stall warning system.