

Robinson R44 Astro, G-BXUK

AAIB Bulletin No: 10/96 Ref: EW/G96/08/16 Category: 1.3

Aircraft Type and Registration:	Robinson R44 Astro, G-BXUK
No & Type of Engines:	1 Lycoming IO-540-C4B5 piston engine
Year of Manufacture:	1994
Date & Time (UTC):	4 August 1996 at 1110 hrs
Location:	Crombie Point, Fife
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - 3
Injuries:	Crew - None Passengers - None
Nature of Damage:	Main rotor blade impact under power and heavy landing checks
Commander's Licence:	Private Pilot's Licence (Helicopters and Gyroplanes)
Commander's Age:	48 years
Commander's Flying Experience:	457 hours (of which 20 were on type) Last 90 days - 40 hours Last 28 days - 12 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and telephone enquiries by the AAIB

Following an uneventful flight from Edinburgh Airport to his private landing strip at Gilmerton, the pilot then flew his three passengers to a friend's landing site at Crombie Point; this would be his first landing at that site. The weather was good with a cloud base of 4,000 feet agl, a surface temperature of 21°C and a surface wind of 180°/11 kt. On final approach, the pilot suddenly noted an obstruction on the landing area and decided to go-around. However, as he did so the low rotor RPM warnings sounded and, to correct this, the pilot lowered the collective lever. He then re-established his go-around but noted some powerlines in his intended flight path which he just managed to clear. By now, the low rotor RPM warning was again sounding and the pilot saw a second obstruction of trees directly ahead. He flared the aircraft and landed heavily; during this final manoeuvre, the main rotor blade struck a tree.

Calculations subsequent to the accident revealed that, with the declared passenger and fuel weights, the helicopter was 40 lb below the MTOW/MLW of 2,440 lb and that the centre of gravity was within limits. The pilot reported that, normally, he carefully checks his intended landing site but that he omitted to do so on this occasion. Additionally, when he arrived at the site, he realised that it was more restricted than he expected but still continued with his planned landing. Finally, for his approach, the pilot assumed the same surface wind as at Gilmerton but considered that it may actually have been from a different direction.