

# Rans S6-ES, G-BYMU

|  |  |             |                       |                  |            |
|--|--|-------------|-----------------------|------------------|------------|
| <b>AAIB Bulletin No:</b>               | <b>12/2001</b>   | <b>Ref:</b> | <b>EW/G2001/07/41</b> | <b>Category:</b> | <b>1.4</b> |
| <b>Aircraft Type and Registration:</b> | Rans S6-ES, G-BYMU   |             |                       |                  |            |
| <b>No &amp; Type of Engines:</b>       | 1 Verner SVS1400 piston engine   |             |                       |                  |            |
| <b>Year of Manufacture:</b>            | 2000   |             |                       |                  |            |
| <b>Date &amp; Time (UTC):</b>          | 25 July 2001 at 1210 hrs   |             |                       |                  |            |
| <b>Location:</b>                       | Barton Airfield, Lancashire  |             |                       |                  |            |
| <b>Type of Flight:</b>                 | Private  |             |                       |                  |            |
| <b>Persons on Board:</b>               | Crew - 1   |             | Passengers - 1        |                  |            |
| <b>Injuries:</b>                       | Crew - None  |             | Passengers - None     |                  |            |
| <b>Nature of Damage:</b>               | Nose Landing Gear collapsed  |             |                       |                  |            |
| <b>Commander's Licence:</b>            | Private Pilots Licence (Microlights)   |             |                       |                  |            |
| <b>Commander's Age:</b>                | 54 years   |             |                       |                  |            |
| <b>Commander's Flying Experience:</b>  | 548 hours (of which 80 were on type)   |             |                       |                  |            |
|  | Last 90 days - 37 hours  |             |                       |                  |            |
|  | Last 28 days - 17 hours  |             |                       |                  |            |
| <b>Information Source:</b>             | Aircraft Accident Report Form submitted by the pilot                           |             |                       |                  |            |
|  | Telephone conversation with UK agent for engine type and repairer of aircraft. |             |                       |                  |            |

The aircraft is equipped with a double belt drive reduction gear. During the climb out, one of the two belts failed and entangled itself with the throttle mechanism, driving the latter to the fully open position. The pilot therefore returned to the field and attempted to land.

The only remaining means of controlling power was by switching the ignition off and on. The pilot switched the engine off and carried out an engine off landing. The aircraft bounced and the nose-wheel collapsed on ground contact. The pilot considers he may have not kept the stick sufficiently far back after the first bounce.

Examination of the drive coupling revealed that the belt pulleys were operating out of alignment, putting more tension in one belt than the other. Further examination revealed that a bolt had failed in the coupling allowing some relative movement to take place between adjacent components, leading to wear. The engine type is little used in the United Kingdom, most Rans S6 aircraft using alternative powerplants.