

Gardan GY80-180 Horizon, G-AWAC

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Aircraft Type and Registration:	Gardan GY80-180 Horizon, G-AWAC
No & Type of Engines:	1 Lycoming O-360-A3A piston engine
Year of Manufacture:	1967
Date & Time (UTC):	21 September 1996 at 1155 hrs
Location:	Popham Airfield, Hants
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - 1
Injuries:	Crew - None - Passengers - None
Nature of Damage:	Bent propeller, shock-loaded engine and minor damage to the fuselage belly
Commander's Licence:	Private Pilot's Licence
Commander's Age:	47 years
Commander's Flying Experience:	372 hours (of which 35 were on type) Last 90 days - 18 hours Last 28 days - 7 hours
Information Source:	Aircraft Accident Report Form submitted by the commander

The Gardan Horizon has a semi-retractable tricycle landing gear operated by a rotating 'crank' type lever situated between the pilots' seats. The landing gear legs all retract rearwards and when retracted the wheels protrude slightly from their housings. Eighteen turns of the lever are required to move the gear in the appropriate direction and an up/down selector on the mechanism ensures that it can only rotate in the selected direction. The flaps are interconnected with the landing gear so that when the landing gear is lowered, the flaps are also lowered.

Two members of the group which owned the aircraft took off for a conversion-to-type flight for the benefit of the newer member who occupied the left hand pilot's seat. They climbed to altitude and carried out general handling manoeuvres which culminated in practice stalls with the landing gear and flaps down. They then returned to Popham for circuit practice. On the downwind leg of the first circuit they carried out pre-landing checks including operating the landing gear handle.

As the aircraft touched down on the grass runway there was a slight bounce and the pilot in command realised that the propeller had struck the ground. He turned the aircraft off the runway and on second contact with the ground, it stopped almost immediately. After securing the fuel, electricals and ignition systems, the two pilots vacated the aircraft in the normal manner.

At first sight it appeared that the landing gear had collapsed on touchdown but when the aircraft was lifted and the landing gear extended using the normal system, the crew realised that they had omitted to raise the landing gear after the stall exercise.

The crew made a classic human factors error. During the downwind checks the landing gear handle had been wound in the 'up' direction and the gear had been raised instead of lowered. Their mistake became expensive when, having operated the cranking lever for the requisite number of turns, they omitted to check for proper 'down' indications.