

# Gardan GY80-180, G-AWAC

**AAIB Bulletin No:** 2/2002    **Ref:** EW/G2001/09/32    **Category:** 1.3

<b>Aircraft Type and Registration:</b>	Gardan GY80-180, G-AWAC	
<b>No &amp; Type of Engines:</b>	1 Lycoming O-360-A3A piston engine	
<b>Year of Manufacture:</b>	1967	
<b>Date &amp; Time (UTC):</b>	29 September 2001 at 1712 hrs	
<b>Location:</b>	Compton Abbas Airfield, Wiltshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Damage to landing gear and propeller	
<b>Commander's Licence:</b>	Commercial Pilots Licence	
<b>Commander's Age:</b>	37 years	
<b>Commander's Flying Experience:</b>	550 hours (of which 31 were on type)	
	Last 90 days - 75 hours	
	Last 28 days - 32 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot and additional AAIB inquiries	

## History of the flight

The aircraft was returning from Dunkeswell Airfield in Devon to Popham in Hampshire. Some 30 minutes after take off, the engine began to run roughly and the pilot decided to make a precautionary landing at Compton Abbas Airfield, which was nearby. He commenced lowering the landing gear, which on this aircraft was operated by rotating a crank handle situated between the pilots' seats. Approximately 19 turns were required to complete the landing gear extension. However with failing engine power and consequent height loss, the pilot was unable to extend the landing gear fully before he switched off the magnetos at 200 feet agl on the approach. The aircraft landed heavily on Runway 26, sustaining damage to the landing gear and the propeller.

## **Fuel system and selections**

The aircraft was equipped with two wing fuel tanks, each of 80 litres capacity, and an auxiliary fuel tank of 40 litres capacity located beneath the rear seat. Electrical fuel quantity transmitters were installed in each tank with associated gauges provided on the instrument panel. The fuel cock could be selected to 'ALL', or 'WING TANKS', or 'REAR'. Following its last refuelling, the aircraft had flown for about 1 hour and 10 minutes in the area of Popham. The outbound flight to Dunkeswell had taken some 40 minutes and the aircraft had subsequently departed for the return flight with the fuel cock selected to 'ALL'. Some fifteen minutes later, the pilot had changed the fuel selection to 'REAR' and it was approximately fifteen minutes after that when the engine problem had developed. Despite changing the fuel selection back to 'ALL', the engine had failed to pick up.

Following the accident, the maintenance organisation that eventually repaired the aircraft could not find fault with the engine. It was surmised that the rear fuel tank had probably ran low on fuel and caused air to be entrained into the fuel supply line. Although the fuel selection had then been changed back to 'ALL', there had been insufficient time remaining for the air to be purged from the fuel supply line.