

ACCIDENT

Aircraft Type and Registration:	Grob G115E Tutor, G-BYVE	
No & Type of Engines:	1 Lycoming AEIO-360-B1F piston engine	
Year of Manufacture:	2000 (Serial no: 82115/E)	
Date & Time (UTC):	24 August 2016 at 1145 hrs	
Location:	RAF Wittering, Cambridgeshire	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Propeller anti-erosion strip detached	
Commander's Licence:	Military	
Commander's Age:	Not known	
Commander's Flying Experience:	4,690 hours (of which 910 were on type) Last 90 days - 45 hours Last 28 days - 13 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The pilot reported that during a formation takeoff, at approximately 400 ft agl, a loud "thud" was heard, followed by the onset of severe vibration. The aircraft was turned downwind immediately and a PAN declared. Once enough runway was available to complete a safe landing, a turn was made onto finals. A glide approach was flown and a successful landing completed.

Examination revealed that the anti-erosion sheath had separated from one of the propeller blades. As a precaution, the operator removed from service all propellers overhauled by their UK subcontractor; this included the incident propeller.

Specialist examination of the failure by the propeller manufacturer indicated that a combination of three defects had led to the loss of the anti-erosion sheath. Insufficient adhesive was present between the blade and the sheath, the layers of glass fibre on the inner portion of the sheath had been sanded excessively, and the sheath was not cleaned totally before refitting to the blade. Examination of the remaining two blades of the incident propeller and all three blades of another propeller overhauled by the same UK subcontractor showed the blades to be free from these defects.