No: 2/85	INCIDENT	Ref: EW/G84/10/10
Aircraft type and registration:	Grumman AG Cat G164 B G-WOLL (light single engined fixed wing aircraft)	
Year of Manufacture:	Not known	
Date and time (GMT):	3 October 1984 at 1633 hrs	
Location:	Water Orton, Near Birmingham Airport	
Type of flight:	Banner towing	
Persons on board:	Crew — 1	Passengers — None
Injuries:	Crew — None	Passengers — None
Nature of damage:	Aircraft — none. A house roof damaged, a car dented and scratched and an overhead electricity power cable broken.	
Commander's Licence:	Commercial Pilot's Licence	
Commander's Age:	Not known	
Commander's total flying experience:	9407 hours (of which 235 were on type)	
Information Source:	Aircraft Accident Report Form completed by the pilot, witness statements, consultations with the operators and component manufacturers, and results of post-incident testing.	

The aircraft was tasked with undertaking a banner towing publicity exercise around the outskirts of Birmingham. A non-standard flight number was obtained from the Civil Aviation Authority to allow routing within the Birmingham zone.

During the banner pick-up a top section of the banner tow line support poles became entangled in the tow line. Aerial inspection of the banner and its tow line was made by the pilot who elected to continue with the task as the pole was apparently well trapped by the tow line loop and grapnel and seemed unlikely to fall as long as the system remained in tension. The tow continued normally until, when 3 miles south east of Sutton Coldfield, the towline parted. The banner descended slowly and drifted towards the village of Minworth.

Subsequent examination of the tow line showed that it had failed at the eye splice at the banner end of the tow line. The weak link fitted at the aircraft end of the tow line had not failed. The weak link had a minimum breaking strength of 680 lbs and the tow line a breaking strength in excess of 1000 lbs. The weak link and tow line were tested and found to break at strengths of 750 lbs and 1200 lbs respectively. Examination of the failed area of the tow line showed that the cable strength had been degraded by up to 50% due to abrasion and crimping.