No: 11/86 **Ref: 1c**

Aircraft type and registration:	Piper PA-28R-180 G-AVYT
No & Type of engines:	1 Lycoming 10-360-B1E piston engine
Year of Manufacture:	1968
Date and time (UTC):	20 September 1986 at 1055 hrs
Location:	Teesside Airport
Type of flight:	Private (pleasure)
Persons on board:	Crew — 1 Passengers — 1
Injuries:	Crew — None Passengers — None
Nature of damage:	Nose and starboard main undercarriages collapsed. Starboard wing buckled, propeller bent, underside of engine cowling and fuselage damaged.
Commander's Licence:	Private Pilot's Licence
Commander's Age:	59 years
Commander's Total Flying Experience:	491 hours (of which 22 were on type)
Information Source:	Aircraft Accident Report Form submitted by the pilot. Met office aftercast. Telephone enquiries by AIB.

The aircraft had been used for a flight from Teeside to the Derwent Water area, returning to Teeside. On his return the pilot elected to do some circuits on runway 23 and completed two without incident. On the downwind leg of the third circuit the engine began to lose power and the pilot turned the aircraft for runway 28 whilst checking for causes of power loss. He found that opening the throttle made no difference to the power but caused the engine to run more roughly so he retarded the throttle until the engine ran smoothly again. The power decayed further during the approach to runway 28 and a landing in the undershoot area became necessary.

Just before touchdown the aircraft passed through the top of a hedge and landed in a flat grass field. The nose and starboard main undercarriages collapsed on touchdown but the occupants were able to leave the aircraft without injury.

Examination of the aircraft showed there to have been fuel available and no mechanical or electrical cause for engine failure could be found. A meteorological aftercast for the Teeside to Derwent Water area showed that the dewpoint was only 2 degrees C below the ambient temperature of about +9C. This is close to the most favourable condition for the formation of engine induction system icing.