ACCIDENT

Aircraft Type and Registration:	Streak Shadow SA, G-TTOY	
No & Type of Engines:	1 Rotax 618 piston engine	
Year of Manufacture:	1996	
Date & Time (UTC):	20 July 2008 at 1220 hrs	
Location:	Brimpton Airfield, Berkshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Tail boom failed, nose leg collapsed, rear hanger bars bent	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	47 years	
Commander's Flying Experience:	133 hours (of which 21 were on type) Last 90 days - 0 hours Last 28 days - 0 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft descended rapidly from about 100 feet during the approach to land, striking the ground hard, short of the runway. The pilot considered that a lack of recent flying practice may have contributed to him not recognising the potential for low level wind shear, which the aircraft then encountered.

Circumstances of the accident

This was the first flight of the year for the pilot, who had planned a short flight from Popham Airfield, near Basingstoke, to Brimpton Airfield, about 11 nm to the north. The weather conditions were good, with a gusty wind giving some light turbulence on departure from Popham. The pilot made contact with the Air/ Ground radio station at Brimpton, who advised him that Runway 25 was in use and that the surface wind was from 310°(M) at 10 kt. Runway 07/25 had a grass surface and was 635 metres long, with the Runway 25 threshold being displaced by 100 metres beyond the start of the strip.

The pilot discontinued two approaches to the runway, the first because of other traffic and the second when he recognised that his aircraft was positioned too high on the final approach. The third approach was flown at about 60 kt with flap 15, with the actual wind appearing to match that reported. At an estimated height of 100 to 120 feet, the aircraft pitched down rapidly. The pilot attempted to correct this with power, and the pitch attitude increased initially before the aircraft again pitched down. There was insufficient height to make a further recovery and the aircraft hit the ground very hard, short of the runway, accompanied by a loud bang. As it continued along the ground towards the runway there was a second bang as the nose landing gear separated; the tail boom had failed in the initial contact so the pilot had been unable to keep the aircraft's nose raised.

The aircraft skidded to a stop with the engine still running. The pilot, who was wearing a full harness and suffered only minor bruising, shut the engine down and extricated himself from the aircraft, assisted by local flying club members who were quickly on the scene. When the pilot inspected the site, it was clear that the aircraft had touched down heavily at two points in the 100 metre undershoot area, and that the nose landing gear had separated at about the start of the runway itself.

The pilot reported learning that trees in the vicinity sometimes gave rise to unusual wind effects when the wind was from certain directions. As it was his first flight of the season, he felt he may have been better avoiding a situation that required a crosswind landing. He also thought that his lack of recent experience may have led him to fail to recognise the potential for low level wind shear posed by the trees adjacent to the runway.