ACCIDENT

Aircraft Type and Registration:	Nomad N22B, N6302W
No & Type of Engines:	2 Allison 250-B17E turboprop engines
Year of Manufacture:	1983
Date & Time (UTC):	12 August 2007 at 1530 hrs
Location:	Chatteris Airfield, Cambridgeshire
Type of Flight:	Aerial Work
Persons on Board:	Crew - 1 Passengers - 13
Injuries:	Crew - None Passengers - None
Nature of Damage:	Nosewheel collapse
Commander's Licence:	Private Pilot's Licence (CAA and FAA)
Commander's Age:	44 years
Commander's Flying Experience:	1,000 hours (of which 150 were on type) Last 90 days - 24 hours Last 28 days - 8 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB

Synopsis

The aircraft, with 13 parachutists on board, inadvertently entered cloud as it climbed through about 8,500 ft. The pilot descended the aircraft and regained VMC at about 4,000 ft; however one of the engines ran down due to icing before the engine anti ice system was selected on. The pilot was unable to restart the engine and returned to his departure airfield, where he flew a faster than normal approach in accordance with training he had received for single-engine landings. The aircraft landed long and the pilot was unable to stop it before the end of the runway. During the subsequent overrun, the nosewheel entered a ditch causing the nose leg to collapse.

The pilot did not hold a type rating for the aircraft, as required under CAA and JAR's, however he was operating under his FAA licence, (based on his CAA licence) and he incorrectly believed he did not require a specific type rating.

History of the flight

The flight was intended to drop 13 parachutists, forming six tandem pairs and a single jumper, at a height of 10,000 ft over Chatteris Airfield. During the climb, the pilot saw a large cumulonimbus cloud ahead, the top of which was above the aircraft. He believed the aircraft would be able to climb over it but at about 8,500 ft, the aircraft unexpectedly entered cloud.

The pilot transferred his attention to the instruments and selected the engine anti-ice on but not in sufficient time to prevent the left engine running down due to icing. He commenced a descent and turned back towards the airfield to try and regain VMC, using a GPS unit for navigation. His attempts to restart the left engine were unsuccessful and he therefore prepared for a single-engine landing. The aircraft regained VMC as it descended through 4,000 ft in the descent.

The pilot stated he increased the approach speed from the normal speed of 70 kt to the blue line speed of 80 kt and landed further into the runway than normal to compensate for the reduced power available. This, combined with the damp grass runway surface and reduced reverse thrust available, caused the aircraft to overrun the end of the runway. The nosewheel subsequently entered a ditch, causing the nose leg to collapse.

Neither the pilot nor the parachutists, who had remained on board throughout, were injured and they were all able to vacate the aircraft unassisted.

Weather

An aftercast obtained from the Met Office showed that an area of unstable air was affecting the area, with showers, some heavy, in the vicinity. Cloud cover was estimated as FEW at about 2,000 ft agl, FEW, SCT or BKN at about 4,000 ft and layers at about 7,000 ft. The cloud type most likely to be encountered was cumulus surmounted by stratocumulus, with some cumulonimbus also reported in the area. The temperature at 8,500 ft was reported as about minus 0.6ºC.

Pilot qualifications

The pilot was employed by the parachuting club as a parachuting instructor but was also their Chief Pilot, flying in an unpaid capacity. This allowed him to conduct parachute dropping flights under the privileges of a private pilot's licence.

The pilot held a private pilot's licence issued by the CAA and another issued by the FAA. He did not hold an instrument rating but did hold an IMC rating, valid when flying under the privileges of his CAA licence. He also held a twin rating for both his CAA and FAA licences and a CAA night rating.

The pilot had conducted all his training for the FAA licences and ratings in the UK. This included a 'high performance' endorsement, a generic qualification allowing pilots to fly more complex types of aircraft, such as the Nomad. However under JAR regulations such a generic qualification is not deemed sufficient for the Nomad and pilots are required to undertake specific training in order to gain a type rating.

The FAA requires pilots to be checked by an instructor every two years, termed a biannual check; the pilot's last biannual check was conducted on 11February 2006 on the Nomad. His last CAA check was a multi-engine renewal carried out on a Beech Baron on 6 January 2007.

FAA licence restrictions

Pilots holding certain CAA and JAR licences can apply to have an equivalent FAA licence issued without the need to undergo any additional training or qualification. Such 'piggyback' FAA licences are subject to FAA pilot certification rule 61.75 (e)(3) which states:

> *'Is subject to the limitations and restrictions on the person's US certificate and foreign pilot licence when exercising the privilege of that US pilot certificate in an aircraft of US registry operating within or outside the United States.'*

As a result of enquiries, the FAA has stated that this limitation includes type ratings.

The FAA's answer to an enquiry by another pilot seeking confirmation that the aircraft could be flown on such a 'piggyback' style licence, without a specific rating, was that this was acceptable where the aircraft is not recognised by 'other CAAs'. Whilst there are currently no Nomads on the UK register, a JAR type rating does exist for the aircraft and it would therefore be possible to operate the type on the UK register and for pilots to gain the relevant JAR type rating.

Had the pilot held an original issue FAA licence, not reliant on any other licence, then the requirement to have a type rating on his CAA licence would be negated.

Comment

The accident occurred because the aircraft landed too far into the runway at a higher than normal speed following a single engine failure. The engine failure occurred because ice was encountered before engine anti-icing was selected and the pilot was then unable to re-start the engine. The pilot was quite candid in stating that he should have diverted to a more suitable airfield but his mindset at the time, being in an asymmetric condition near Maximum All Up Weight (MAUW), was to land as soon as he could.

The investigation revealed that the pilot was operating to a level of qualification that would not be accepted under CAA or JAR standards. Had the pilot completed the JAR type rating it is possible that the correct single engine approach profile would have been flown which makes the issue of FAA licence restrictions more significant. A meeting was held on 1/2 April 2008 between the EASA, the FAA and TCCA in an attempt to improve the harmonisation of licensing rules. Also, oversight by the British Parachute Association (BPA) of member organisations is complicated where foreign registered aircraft and foreign licensed pilots are used; these operations must also comply with the regulations in force in another state. There are obviously areas of confusion that exist concerning foreign licensing and therefore the following recommendation is made:

Safety Recommendation 2008-031

It is recommended that the Federal Aviation Administration (FAA) clarify the implications of FAA pilot certification rule 61.75 (e)(3) to those in possession of FAA licences that are based on foreign state licences.