

ACCIDENT

Aircraft Type and Registration:	Mainair Blade, G-BYOW
No & type of Engines:	1 Rotax 582 piston engine
Year of Manufacture:	1999
Date & Time (UTC):	16 September 2006 at 1437 hrs
Location:	Barra, Western Isles, Scotland
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - 1 (Minor) Passengers - N/A
Nature of Damage:	Two propeller blades snapped, hang bolt and base bar bent. Trike pod, engine, wing and undercarriage damaged.
Commander's Licence:	Private Pilot's Licence
Commander's Age:	48 years
Commander's Flying Experience:	143 hours (of which 104 were on type) Last 90 days - 10 hours Last 28 days - 5 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

Whilst taxiing the aircraft in a strong and gusty wind, the aircraft was blown over and the pilot sustained minor bruising to his ribs.

History of the flight

The pilot was taking part in his club's annual visit to Plockton during which he decided to fly to Barra and back. However, as the pilot had no access to the internet he was unable to use the Met Office's on-line aviation services and, therefore, obtained a weather forecast from the BBC local news which forecast a southerly wind of 7 kt with visibility of over 10 km. Before he departed Plockton the pilot contacted Barra who informed him that Runway 15 was in use and the wind was 160°/20 kt.

The pilot flew the first part of his journey to North Uist at a height of 9,800 ft and noted that he had a tailwind of 7 kt, which increased to a 35 kt headwind when he turned south towards Barra. On arriving in the circuit at Barra, the pilot experienced difficulty in flying the aircraft due to strong rotors coming off the hills to the south of the runway. Nevertheless, he landed on the sand runway and back-tracked to the parking area. The pilot reported that once on the ground he experienced difficulty in moving the wing due to the strong wind. As he taxied the aircraft into the allocated parking area, a strong gust of wind tipped the wing and trike over, forcing the base bar into the pilot's chest. Ground and fire staff assisted the pilot in vacating and righting the

aircraft. The aircraft was badly damaged and the pilot sustained bruising to his ribs.

Meteorological information

The Met Office reported that at the time of the accident there was a fresh to strong southerly flow covering the western Highlands and Western Isles of Scotland. The 2,000 ft wind between Plockton and Barra was estimated to be from 190° at 25 kt and may have been as much as 30 kt over the Barra area. The Met Office also reported that the TAFs and METARs for Benbecula, on the day of the accident, would have been representative of the weather conditions at Barra. The TAF at Benbecula at the time of the accident forecast a wind from 170° at 20 kt gusting to 30 kt and the METAR recorded the wind as from 160° at 21 kt.

Comment

The pilot reported that despite the strong wind, the landing was within the crosswind limit of the aircraft

and that it was the unexpected gust that caused the aircraft to tip over whilst he was taxiing to the parking area. He had realised the limitations on relying on the local radio weather forecasts and had thought that this forecast combined with the information provided by Barra would have been sufficient. Unfortunately, the wind information obtained from Barra made no mention of the forecast gusty conditions.

The manufacturer of the aircraft confirmed that they do not publish ground handling limits and that providing the wind is steady the pilot should be able to safely taxi the aircraft in reasonably strong winds. However, gusting winds present more of a problem and the average pilot may experience difficulty in operating his aircraft in gusty winds above 20 mph (18 kt).