ACCIDENT

Aircraft Type and Registration:	Piper PA-E23-250 Aztec, G-LIZZ	
No & Type of Engines:	2 Lycoming IO-540-C4B5 piston engines	
Year of Manufacture:	1973 (Serial no: 27-7405268)	
Date & Time (UTC):	20 August 2015 at 1631 hrs	
Location:	St Mary's Airport, Isles of Scilly	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 2
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damaged beyond economic repair	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	58 years	
Commander's Flying Experience:	4,300 hours (of which 2,000 were on type) Last 90 days - 110 hours Last 28 days - 57 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

Synopsis

The pilot was flying an NDB approach to Runway 32, with a 10 kt tailwind, in IMC. At MDA, having not acquired any visual references, the pilot commenced a go-around. Shortly thereafter the pilot saw the Precision Approach Path Indicators (PAPIs), discontinued the go-around and continued to land. The aircraft landed approximately 200 m from the threshold of the 603 m long runway. Believing the aircraft was too fast to stop before the end of the runway the pilot steered it to the right. The aircraft left the paved surface at the end of the runway onto grass at its edge. There were no injuries.

History of the flight

The aircraft was returning to St Mary's Airport from Essen Mulheim Airport, Germany. It had flown there the previous day to take a passenger, who occupied a seat in the cabin, for a meeting, leaving his wife and children behind on the Isles of Scilly. Occupying the co-pilot's seat was one of the pilot's Instrument Rating (IR) students.

En route the pilot received the latest weather for St Mary's. This indicated fog and low cloud, which could affect the ability of the aircraft to land there. The pilot descended to allow the passenger to try to find an alternative means of transport onto the island, using the internet on his mobile phone. This was unsuccessful.

As the aircraft approached St Mary's, ATC reported that the wind was from 190° at about

15 kt. Due to the wind the pilot requested an approach to Runway 14. This was not approved by ATC as there are no published approaches to Runway 14. The pilot decided to fly an NDB approach to Runway 32. Knowing that Runway 32 has a steep upslope, the pilot believed that this would counteract the 10 kt tailwind. He added that he based this on his previous experiences of landing on Runway 32 where he had to apply power after landing to taxi up the slope. However, he did not carry out a landing performance calculation to check if there was sufficient landing distance available on Runway 32 with the tailwind.

The pilot then commenced an approach to Runway 32 in IMC using the NDB. Based on the published MDA of 500 ft amsl he calculated a "derived decision altitude" of 530 ft (MDA + 30 ft). During the approach the student pilot advised the pilot of the distance to the runway using a GPS. At the MDA the aircraft was in IMC so the pilot commenced a go-around. However, very shortly thereafter, he saw the PAPIs, which indicated that the aircraft was on the ideal approach path angle, so discontinued the go-around and continued to land.

The aircraft landed approximately 200 m from the threshold, close to the top of the slope. As the aircraft reached the top, the pilot considered it was too fast to stop before the end of the runway. Aware of a precipice in the overshoot he steered the aircraft to the right. The aircraft departed the paved surface at the end of the runway and onto grass at its edge. As it did so, the nose and left main landing gear collapsed and the aircraft came to a halt. See Figure 1. The pilot secured the aircraft's systems and the occupants vacated the aircraft uninjured. The RFFS were quickly in attendance.

Figure 1

G-LIZZ after the accident

Weather information

The forecast for St Mary's Airport, issued at 1107 hrs on 20 August 2015, stated that from 1200 hrs to 2100 hrs the wind would be from 200° at 15 kt, the visibility would be 300 m in fog and there would be OVERCAST cloud at 100 ft aal. There was a 40% probability that temporarily between 1200 hrs and 1800 hrs the visibility would be 2,000 m in moderate rain and drizzle with SCATTERED cloud at 100 ft aal and BROKEN cloud at 400 ft aal.

The following METARs were recorded at St Mary's:

METAR EGHE 201550Z 19015KT 5000 BR SCT001 BKN002 17/17 Q1017=
METAR EGHE 201620Z 19016KT 4500 BR SCT002 BKN003 17/17 Q1017=
SPECI EGHE 201631Z 19016KT 4500 BR SCT002 BKN003 17/17 Q1017=

The SPECI (special report) at 1631 hrs was recorded as a result of the accident.

Airport information

Runways 14/32 at St Mary's Airport have a LDA of 603 m. The first 300 m of Runway 32 rises at a 1:30 gradient (3.3%).

Pilot's comments

The pilot stated that he identified "about 10 opportunities" to discontinue with this flight and that continuing to land had been unwise. He added that as an IR instructor he knew that he should having completed the go-around having commenced it. However, he discontinued the go-around because he thought he might not see anything at the MDA on a subsequent approach.

After the accident the pilot highlighted the circumstances, and his learning points, at a Crew Resource Management seminar. He has also written an article to be published in a general aviation magazine.