

ACCIDENT

Aircraft Type and Registration:	BB85Z hot air balloon, G-ELMR	
No & Type of Engines:	No Engines	
Year of Manufacture:	2022 (Serial no: 1936)	
Date & Time (UTC):	13 September 2022 at 1730 hrs	
Location:	Deighton, North Yorkshire	
Type of Flight:	Commercial Air Transport (Passenger)	
Persons on Board:	Crew - 1	Passengers - 14
Injuries:	Crew - None	Passengers - 1 (Serious) 3 (Minor)
Nature of Damage:	No reported damage	
Commander's Licence:	Commercial Pilot's Licence	
Commander's Age:	58 years	
Commander's Flying Experience:	2,821 hours (of which 3 were on type) Last 90 days - 38 hours Last 28 days - 4 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

Having completed a flight over the city of York the pilot of G-ELMR began a descent ready for landing. Having decided on a field the pilot began to slow his rate of descent. Despite an extended burn, the balloon landed more heavily than the pilot would have liked before bouncing back into the air. It finally came to rest in a wide ditch between fields. During the landing sequence four of the passengers were injured.

History of the flight

Having been airborne for around 50 minutes, the pilot of G-ELMR decided to descend to find a landing spot for the balloon. With a light wind from the north, the pilot positioned the balloon to allow for a downwind landing. Having chosen a cut field near a main road, the pilot began to slow his descent.

With the wind varying in direction, the pilot then realised that the burns he had done to reduce the descent rate were not going to be sufficient to stop the balloon touching down short of his target field. He instructed his passengers to adopt their briefed and rehearsed landing positions. He committed to landing in a field of short stubble under the balloon. G-ELMR touched down harder than the pilot would have liked, and the balloon bounced 20 to 30 ft into the air before coming to rest in a wide ditch. One of the passengers sustained a serious head injury with others reporting neck and limb injuries.

Organisational information

Before flight, passengers are given a safety brief in which the position they must adopt on landing is shown to them, and they must then demonstrate the position to the pilot. This position is to have their heads and back against the padding of the basket and to hold on with two hands until the balloon comes to a complete stop. They are also briefed that the balloon may experience one or two bounces on landing and that it is vital they remain in the landing position if this should occur.

When a burn is in progress it can be difficult for the passengers to hear the instructions of the pilot. This can sometimes mean that the instructions to adopt the landing position can be later than ideal if a long burn is used to reduce the descent rate, as was the case with G-ELMR. The pilot of G-ELMR had been using the burners for a significant time to slow the descent rate and, after realising that his burn would not prevent the touchdown, was only able to give the passengers the instruction shortly before touchdown, as the balloon passed treetop level.

Analysis

Having adopted a high rate of descent rate ready for the end of the flight, the pilot then required a long burn to reduce this descent rate for landing. During this burn it was difficult for the pilot to instruct the passengers to adopt their landing positions due to the noise. Having realised that ground contact short of his planned field was unavoidable, the pilot gave the landing instructions to the passengers. The lateness of the instructions and the background noise of the burners may have meant the passengers did not hear the instructions clearly or in time. The balloon touched down heavily, before bouncing and coming to rest in a ditch. Four of the passengers were injured.

Conclusion

As G-ELMR came into land at the end of the flight, it touched down heavily before bouncing back into the air and coming to rest in a ditch. Four passengers on the flight were injured during the landing sequence, possibly due to being unable to adopt the correct landing position in time.

Bulletin Correction

After publication the AAIB became aware of further details of the injuries to passengers on the flight. As a result the report has been updated to take account of this further information and published above.

Full details of the corrections can be found in AAIB Bulletin 6/2023.

The online report was updated on 8 June 2023.