



Aviation Investigation Final Report

Location:	Peoria, Arizona	Accident Number:	GAA15LA015
Date & Time:	March 14, 2015, 08:20 Local	Registration:	N210UM
Aircraft:	ULTRAMAGIC SA N210	Aircraft Damage:	Minor
Defining Event:	Hard landing	Injuries:	1 Serious, 10 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The pilot reported that, halfway through the flight, he determined that the wind aloft was higher than anticipated and that the original planned landing destination was no longer suitable. While the balloon was between 3,000 and 4,000 ft mean sea level, he started looking for another landing area and noted that the surface wind had increased and changed direction since the launch; the wind aloft about this time was reported to be 26 knots. The pilot stated that, during the descent to land, the balloon was traveling "about 15 mph." During the subsequent landing in an open field, the gondola impacted the ground hard twice, followed by two small hops, and then came to a stop. One of the passengers sustained two broken ankles during the two hard landings.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's selection of unsuitable terrain for landing after noting a higher-than-anticipated wind speed and the balloon's high descent rate, which resulted in a hard landing.

Findings

Personnel issues	Aircraft control - Pilot
Personnel issues	Decision making/judgment - Pilot
Aircraft	Descent rate - Not attained/maintained
Environmental issues	High wind - Effect on equipment
Environmental issues	Rough terrain - Decision related to condition
Environmental issues	High wind - Effect on operation

Factual Information

History of Flight

Enroute-cruise	Other weather encounter
Landing	Hard landing (Defining event)

On March 14, 2015 about 0820 Mountain standard time, an Ultramagic SA N210 balloon, N210UM, made a hard landing during a visual approach and landing to an open field in Peoria, Arizona. The pilot and nine of the ten passengers were not injured. One passenger sustained serious injuries during the landing sequence. The balloon was registered to Float Balloon Tours, L.L.C. of Tempe, Arizona, and operated by the pilot, as a day, visual flight rules, passenger flight under 14 Code of Federal Regulations, Part 91. Visual meteorological conditions prevailed at the time of the accident and no flight plan was filed. The flight originated from private property in Phoenix, Arizona.

According to the pilot, halfway through the flight, he determined that winds aloft were faster than anticipated, and the original planned landing destination was no longer suitable. While the balloon was between 3,000 and 4,000 feet mean sea level, he started looking for another landing area and noted that the surface wind had increased and changed direction since the launch; the wind aloft about this time was reported to be 26 knots.

The pilot stated that, during the descent to land, the balloon was traveling "about 15 mph." During the subsequent landing in an open field, the gondola impacted the ground hard twice, followed by two small hops, and then came to a stop. The landing area was uneven, rocky, and had some vegetation. One of the passengers sustained two broken ankles during the two hard landings.

The gondola sustained minor damage to the scuff leather coverings.

The pilot reported no mechanical malfunctions or failures with the balloon prior to the flight that would have precluded normal operation of the balloon.

Pilot Information

Certificate:	Commercial	Age:	56
Airplane Rating(s):	None	Seat Occupied:	
Other Aircraft Rating(s):	Balloon	Restraint Used:	None
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 10, 2014
Flight Time:	1042 hours (Total, all aircraft), 45 hours (Total, this make and model), 989 hours (Pilot In Command, all aircraft), 35 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ULTRAMAGIC SA	Registration:	N210UM
Model/Series:	N210 NO SERIES	Aircraft Category:	Balloon
Year of Manufacture:	2013	Amateur Built:	
Airworthiness Certificate:	Balloon	Serial Number:	210/90
Landing Gear Type:	None	Seats:	13
Date/Type of Last Inspection:	September 6, 2014 Annual	Certified Max Gross Wt.:	4540 lbs
Time Since Last Inspection:		Engines:	
Airframe Total Time:	136.4 Hrs at time of accident	Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	On file	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KDVT,1455 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	109°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.17 inches Hg	Temperature/Dew Point:	19°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Phoenix, AZ	Type of Flight Plan Filed:	None
Destination:	Phoenix, AZ	Type of Clearance:	None
Departure Time:	07:40 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:	1 Serious, 9 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 10 None	Latitude, Longitude:	33.750556,-112.262779(est)

Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	Thomas M Dickerson; FAA Scottsdale FSDO; Scottsdale, AZ
Original Publish Date:	September 24, 2015
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=90913

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).