

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR22FA072

ACCIDENT SITE AND WRECKAGE EXAMINATION REPORT

Factual Report

January 14-15, 2024

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A. ACCIDENT

Location: Eloy, Arizona
Date: 01/14/2024
Time: 0747 mountain standard time
Aircraft: Kubicek BB85Z

B. PARTICIPANTS

IIC	Andrew Swick NTSB/AS-WPR Phoenix, Arizona
Investigator	Albert Nixon NTSB/AS-WPR Phoenix, Arizona
Evidence Management Specialist	David Pereira NTSB/MD-5 Phoenix, Arizona
TDA	Derek Freckleton NTSB/MD-6 Washington, DC
FAA-IIC	Chuck Baxter FAA-FSDO Scottsdale, Arizona
FAA	Mark Pritchett FAA Scottsdale, Arizona
BFA	Andrew Baird Balloon Manufacturer Where?
Local Law Enforcement	Tyler Gordon Eloy Police Department Eloy, Arizona

C. ACCIDENT FLIGHT INFORMATION

The flight departed near the Francisco Grand Hotel and Golf Resort, near Casa Grande, Arizona, about 17 and 3/4 miles, west-northwest from the accident site. The flight departed before dawn (0703), about 0614. Thirteen occupants boarded the basket and the 8 skydivers departed from the balloon about 28 minutes later at about 10,000 ft mean sea level (msl). Soon after the skydivers departed the balloon, the pilot initiated the descent. Witnesses on the ground captured images of the rapidly descending balloon. (See figure 1.) The balloon impacted the ground about 33 minutes later.



Figure 1-Witness image of the accident balloon during descent.

D. DETAILS OF THE EXAMINATION

1.0 Accident Site Examination

The accident site was about 2 and 1/2 miles northeast of Eloy Municipal Airport (E60), Eloy, Arizona, and located on level desert terrain surrounded by sparse desert and dry brush. The balloon's envelope was located across the ground on the west side of the basket. The envelope remained attached to the basket at all connections. The envelope remained intact, and the vent was found in its relative position to the top opening. Pulleys and lines remained attached to the vent and envelope. The rapid deflation valve line (red) and inflight vent (red and white) remained attached to the basket and envelope. The lower envelope panels and Nomex panels were noted to have thermal damage. The basket remained upright and no movement of the basket across the ground was evident. One propane tank was removed from the basket by first responders. This tank remained attached to the line and burner assembly. The burner support frame had impact damage.



Figure 2. Accident site aerial view from a drone. (Courtesy of the Eloy Police Department)



Figure 3. Accident site, basket and envelope.

The locking carabiners attaching the envelope to the basket were all found in the locked position and the cables were undamaged. The envelope was removed from the basket during the onsite examination. The burner support frame was damaged and the burner assembly was found dangling above the center of the basket.

An onboard video camera and multiple mobile phones were gathered at the site. Witness accounts, photos of the balloon during the accident flight and cell phone video of the balloon descending were also gathered.

2.0 Follow-up Wreckage Examination

The wreckage was relocated to Air Transport, in Phoenix, Arizona, where a follow-up examination took place. A BFR representative and the FAA were present for the follow-up examination.



Figure 4. Wreckage examination layout.

2.1 Envelope Examination

The parachute valve line (red and white colored) continuity was established to the edge of parachute attachment point and had thermal damage.

The rapid deflation vent line (red colored) continuity was established to the rapid deflation vent attachment point and had thermal damage.

The rotation vent line (green colored) continuity was established and was thermally damaged.

The rotation vent line (black colored) continuity was established and was thermally damaged.

The envelope was spread out on the examination floor and a gore-by-gore panel examination was conducted.

- Nomex panels - thermally damaged gores: 25-26, and 26-27.
- A Panels - (first panel adjacent to the Nomex panels) Gores: 1-2, 2-3, 7-8, 8-9, 12-13, 13-14, 14-15, 15-16, 18-19, 19-20, 21-20, 21-22, 23-24, 24-25, 25-26, 27-8, and 28-1 were thermally damaged. Gores: 9-10, 11-12, and 18-19, were ripped.
- B panels - Gores: 1-2, 13-14, 14-14, 15-16, 19-20, 23-24, 24-25, and 27-28, were thermally damaged.
- C panels - Gores: 23-25 and 24-24 were thermally damaged.
- D panels - no damage noted.
- E panels - no damage noted.
- F panels - no damage noted.
- G panels- no damage noted.
- H panels -no damage noted.
- I panels - no damage noted.
- J panels - no damage noted
- K panels - no damage noted
- L panels - no damage noted
- M panels - no damage noted.
- N panels - no damage noted.
- panels - no damage noted.
- P panels - no damage noted.
- Q panels - no damage noted.
- R panels - no damage noted.
- S panels - no damage noted.
- T panels- no damage noted.
- U panels - no damage noted.
- V panels - no damage noted.
- X panels - Gore: 9-10 small tears.
- Y panels - Gores: 7-8, and 9-10 small tears.

Examination of the rapid deflation vent and turning vents revealed no anomalies. Stitching on the rim tape was frayed in places consistent with whipping and flailing damage. The thermal sensor was not found in the envelope and the thermal sensor Velcro attachment was undamaged.



Figure 5. Follow-up examination, accident balloon.

The postaccident examination of the basket and balloon revealed no evidence of any preimpact mechanical malfunctions or failures that would have precluded normal operation.

2.2 Basket Examination

The basket had seven propane tanks installed inside the basket.

No. 11	No. 19	No. 14	No. 17	No. 3	No. 13	No. 21
~Full	~Full	~30% Full	~Full	Empty	Empty	Empty

The burner bridge mount and cross bar separated and had impact damage. Two of the burner support poles (nylon) had impact damage. One of the three burner coils was dented. One fuel hose had impact damage near an end fitting.

The basket sidewall remained intact and had impact damage near the lower rim. The lower basket skids remained attached to the bottom of the basket.

Submitted by:

Andrew Swick
Aviation Accident Investigator