



Australian Government

Australian Transport Safety Bureau

Wirestrike, Kavanagh Balloons E-240

Bulleen Park, Victoria, on 14 March 2021



Source: planning.vic.gov.au

ATSB Transport Safety Report

Aviation Occurrence Brief

AB-2021-008

Final – Date of public release

AB-2021-008

Occurrence Briefs are concise reports that detail the facts surrounding a transport safety occurrence, as received in the initial notification and any follow-up enquiries. They provide an opportunity to share safety messages in the absence of an investigation.

What happened

On 14 March 2021, the pilot of a Kavanagh E-240 balloon was conducting a scenic flight over Melbourne, Victoria with 10 passengers on board.

Shortly before 0830 Eastern Daylight-saving Time,¹ the balloon approached the planned landing area at Bulleen Park. To reach the landing area, the pilot needed to conduct a descent into a westerly wind. This resulted in the balloon descending over powerlines, which varied from the normal practice of passing over significant obstacles while in level flight. The powerlines were adjacent to the landing area, suspended between two high tension towers (Figure 1), and displayed on the pilot's iPad.

Figure 1: Incident location showing intended landing area, powerlines and approximate balloon flightpath



Source: Google Earth, annotated by the ATSB

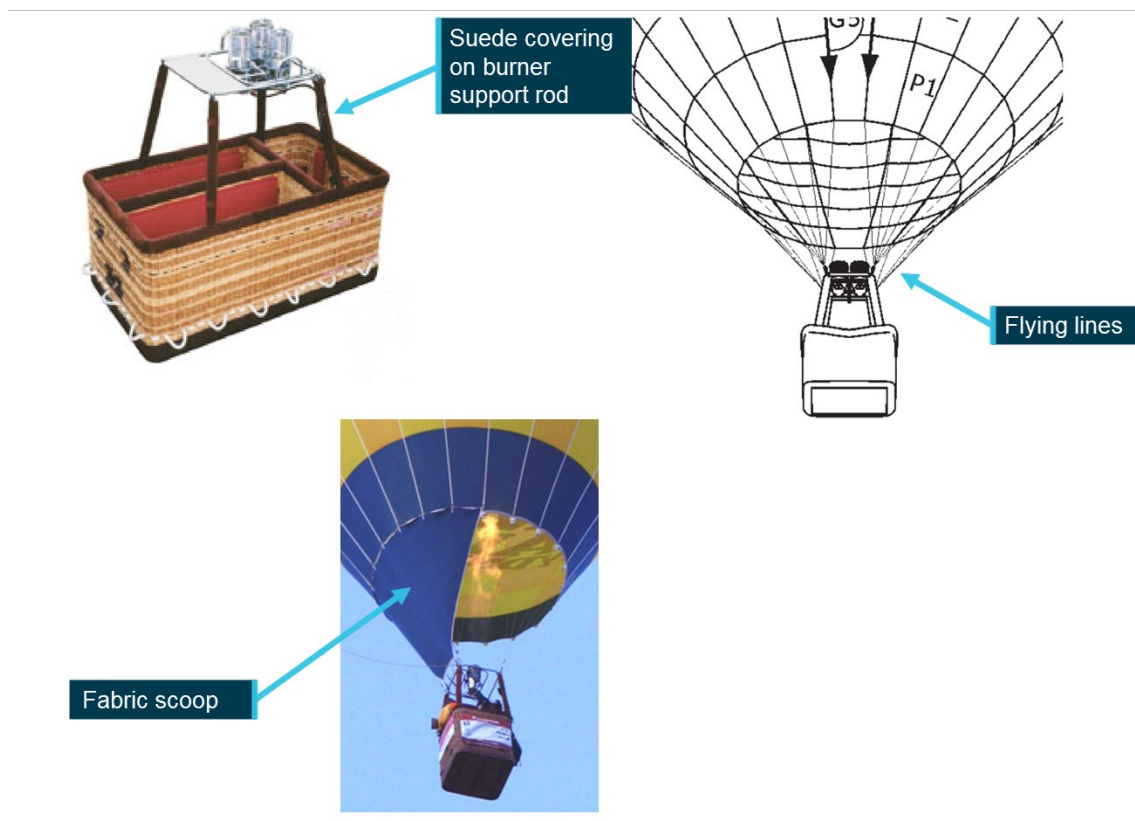
¹ Eastern Daylight-saving Time (EDT): Coordinated Universal Time (UTC) + 11 hours.

The pilot conducted the descent so as to pass above the high voltage wires that they could see. However, due to local lighting conditions, approaching the powerlines in a descent and vegetation in the area, the pilot did not see an earthing wire² that ran 7.43 m above the high voltage wires.

During the descent, the balloon's basket struck the earthing wire, which arrested its forward momentum. The basket remained held against the earthing wire, and above the high voltage wires, for about 20 seconds as the pilot engaged the burner to initiate a climb. The balloon then climbed free of the earthing wire, sustaining minor damage in the process.

The flight proceeded to an alternative landing area at Westerfolds Park without further incident. The pilot and passengers were uninjured. The balloon sustained damage to five of the 20 woven stainless steel flying lines, the suede covering on a burner support rod and the balloon's fabric scoop (Figure 2).

Figure 2: Damage to balloon and basket



Source: Kavanagh Balloons, annotated by the ATSB

Safety action

As a result of this incident, the operator has advised the ATSB that it has taken the following safety actions:

- instituted a policy that if wind conditions do not permit an approach to this landing area to be conducted in level flight, with a minimum of 40 m clearance above powerlines, the flight is to proceed to the next suitable landing site
- reminded pilots that flight should 'always be carried out with extreme care and consideration to avoid powerline contact' in line with the operations manual.

² An earthing wire does not carry electrical current, its purpose is to protect the other conductor wires from lightning strikes.

Safety message

This incident is an important reminder of the hazards associated with operations around powerlines. It is also a reminder to balloon operators of the importance in planning descents to take place when downwind of any significant obstacles.

In this incident, the pilot had operated into this landing area multiple times and was familiar with the powerlines but struck them anyway. This is not uncommon, as ATSB research indicates that in 63 per cent of wirestrike incidents the pilot was aware of the powerlines that were subsequently struck.

The Australian Ballooning Federation's *Pilot Circular No 18*, dated February 2012, also highlights the following hazards to pilots in operations around powerlines that are relevant to this occurrence:

- Complacency: Familiarity and repetition regarding operation and location can lead to complacency. Be aware of this and hence be vigilant. Data shows the worst accidents are often made by the most experienced and skilled operators.
- Reduced visibility: Sun, mist, haze, contrast. Be vigilant and conservative under these conditions.
- See and avoid scanning technique: Avoid focusing too long on close objects or scanning quickly left and right. Focus at a distance and move attention slowly over small arcs pausing briefly for a few seconds each time to closely examine the area.

The ATSB publication [Avoidable Accidents No. 2 – Wirestrikes involving known wires](#) provides further guidance in mitigating the risk to operations around powerlines.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, no investigation has been conducted and the ATSB did not verify the accuracy of the information. A brief description has been written using information supplied in the notification and any follow-up information in order to produce a short summary report, and allow for greater industry awareness of potential safety issues and possible safety actions.

General details

Occurrence details

Date and time:	14 March 2021 – 0830 EST	
Occurrence category:	Serious incident	
Primary occurrence type:	Wirestrike	
Location:	Bulleen Park, Victoria	
	Latitude: 37° 46.33' S	Longitude: 145° 4.43' E

Aircraft details

Manufacturer and model:	Kavanagh Balloons E-240	
Type of operation:	Charter - passenger	
Activity:	Scenic Flight	
Sector:	Balloon	
Departure:	Fawkner Park, Victoria	
Destination:	Bulleen Park, Victoria	
Actual destination:	Westerfolds Park, Victoria	
Persons on board:	Crew – 1	Passengers – 10
Injuries:	Crew – Nil	Passengers – Nil
Aircraft damage:	Minor	