

COMMONWEALTH OF AUSTRALIA DEPARTMENT OF CIVIL AVIATION TRANSPORT	<b>AIRCRAFT ACCIDENT INVESTIGATION SUMMARY REPORT</b>	Reference <b>AS/753/1015</b>
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<b>1. LOCATION OF ACCIDENT</b>				
<b>4 NM South from Bannockburn, Victoria</b>	Height a.m.s.l. (ft) <b>500</b>	Date <b>29.3.75</b>	Time (Local) <b>1530</b>	Zone <b>EST</b>

<b>2. THE AIRCRAFT</b>				
Make and Model <b>Cessna A150K</b>	Registration <b>VH-RAG</b>	Certificate of Airworthiness	Valid from <b>28.5.71</b>	Valid to <b>27.5.80</b>
Registered Owner (name and address) <b>B.A. Bevan 15 Peary Street Belmont Victoria</b>	Operator (name and address) <b>L.G. &amp; N.P. Mahon Torquay Road Mt Duneed Victoria</b>		Degree of damage to aircraft <b>Destroyed</b>	
Defects discovered  <b>Nil</b>		Other property damaged <b>Power line distorted</b>		

<b>3. THE FLIGHT</b>				
Last or intended departure point <b>Grovedale</b>	Time of departure <b>1500</b>	Next point of intended landing <b>Grovedale</b>	Purpose of flight <b>Local training</b>	Class of operation <b>Aerial Work</b>

<b>4. THE CREW</b>						
Name	Status	Age	Class of licence	Hours on type	Total hours	Degree of injury
<b>Harold GRAYSON</b>	<b>Pilot</b>	<b>56</b>	<b>Student</b>	<b>46</b>	<b>48</b>	<b>Minor</b>

<b>5. OTHER PERSONS</b> (all passengers and persons injured on ground)					
Name	Status	Degree of injury	Name	Status	Degree of injury
<b>Nil</b>					

<b>6. CONTRAVENTIONS OF REGULATIONS AND ORDERS</b>	
Regulation or Order No.	Nature of contravention
<b>See Section 16</b>	

<b>7. RELEVANT EVENTS</b>
<p>The student pilot was authorised for one hour solo general flying in the local training area to practise steep turns and other sequences as required. He departed from Grovedale and climbed to 2000 feet towards the west. After completing several steep turns he found the conditions too turbulent to continue and decided to fly to his sister's property about seven miles north west from the training area where he was planning to develop a landing strip. The aircraft was descended to a height the pilot estimated to be 200 feet AGL, about one mile east of the property. The pilot planned on making an inspection flight into the westerly wind, over the proposed landing area. As he crossed the road forming the eastern boundary of the property the aircraft struck a three cable power line about 40 feet AGL. The aircraft decelerated rapidly and rolled on to its back. It impacted on the left wing tip and then in an inverted, steeply nose down attitude. The pilot received only minor injuries and left the aircraft after turning off the master and ignition switches.</p> <p>This was the first time the pilot had flown the aircraft wearing the bifocal lenses prescribed following license renewal medical in November 1974. The use of these lenses probably affected the pilot's judgement of height and resulted in him flying the aircraft at a much lower height than intended.</p>

<b>8. OPINION AS TO CAUSE</b>
<p>The cause of the accident was that the aircraft was flown at an unsafe height.</p>



NARRATIVE (give a concise chronological account of the sequence of events)

Mr Harold Grayson had commenced his flying training at Grovedale in July 1972. He was 54 years of age at that time and intended only to undertake local training. His training progressed slowly over the next two years and his student license lapsed in July 1974.

2. Grayson did not fly again for several months as he was in hospital with back problems. He underwent another license medical test on 19.11.74 and was passed to private license standards with a restriction to wear glasses. When he began flying again he showed his renewed student license to Mr F. Stevens, the CFI of the flying school, but did not point out the glasses restriction. He indicated to Mr F. Stevens that he would like to concentrate on obtaining his license.

3. The CFI considered that Grayson's flying was safe but rough. He concentrated on trying to improve the standard of Grayson's flying and emphasised practising steep turns. On the day of the accident Stevens authorised Grayson for a solo period of one hour in the training area. He briefed Grayson to practise steep turns and any other sequence Grayson thought necessary. Grayson was not wearing his glasses when he departed and had not worn them on any occasion when he had flown with Stevens.

4. The aircraft was observed to depart from the 270° strip and head towards the cement works west of Grovedale. The pilot reported that he climbed the aircraft to 2000 feet in the training area. He performed some steep turns but found the conditions very turbulent and decided to fly to his sister's property which is about 12 miles NW from Grovedale and outside the training area. Grayson had been considering buying a small aircraft after he obtained his private license and intended developing a strip at his sister's property and keeping the aircraft there.

5. This was the first time that the pilot had worn his bifocal glasses while flying the aircraft. Although his license had been endorsed at the time of renewal he had not worn them before. However he had realised that as he hoped to undergo his license test in the near future he would need to become used to wearing his glasses and decided to do so on this flight.

6. After leaving the training area the pilot descended the aircraft to an estimated 200 feet AGL approximately one mile east of the property. The wind at the time was westerly at about 20-25 knots and gusty. The pilot decided to overfly the property into wind along the proposed location of the strip.

7. The pilot did not see the power line along the eastern boundary of the property. As he crossed the road there was a brilliant flash and the aircraft crashed. After impact the pilot turned off the master and ignition switches and left the aircraft.

8. The first aircraft component to contact the three cable power line was the windscreen. This broke and the pieces of perspex were blown back across the road. The cables short circuited resulting in the flash seen by the pilot. The cables then contacted the wing lift struts just below the wing and slid up to the wing attachment point on both sides. The power line did not break and the aircraft was rapidly decelerated. The left wing dropped and the aircraft fell to the ground as it rolled on its back. The main impact occurred in an inverted, steeply nose down attitude. The strong wind blew the aircraft backwards and it came to rest inverted but still pointing in the direction of flight. The power line was approximately 40 feet AGL. The impact marks indicated that the nose of the aircraft hit the ground about 11 metres to the west of the power line. The aircraft was blown backwards and at rest the nose was slightly closer to the power line.



JUSTIFICATION (state concisely the reasons underlying the opinions described in Section 8 of this report, and indicate why this opinion is preferred to the possible alternatives.)

Although the pilot breached ANRs by leaving the training area and descending below 500 feet AGL, these actions need not have resulted in an accident. The accident became inevitable when the aircraft was descended to such a low height in an area where power lines are prevalent.

2. The pilot reported that he had intended to descend to 200 feet AGL. At this height he would have been above any obstructions and the accident would not have occurred. However his judgement of height was most inaccurate and the aircraft was descended to about 40 feet AGL. The CFI at the flying school stated that the pilot's height assessment had been good in the past. Therefore there was some reason on this flight why his judgement was unsound.

3. The problem apparently lay in the pilot's use of his bifocal glasses for the first time. He reported that he had trouble using them and found he was looking outside the aircraft through the bottom part of the lens instead of lowering his head and using the upper (long distance) lenses. This factor must have severely affected his estimation of height as well as causing some considerable distraction. It is considered that this was the reason for the aircraft being as low as it was. The difficulty of using these glasses for the first time probably also removed the slight possibility that the pilot may have seen the power line. However in view of the distance apart of the poles (250 metres) and the fact that the pilot thought he was at about 200 feet AGL, he probably was not concerned with such an obstruction and would have had difficulty seeing it even under better conditions.

4. No positive reason could be established for the pilot's action in completely ignoring regulations and undertaking this illegal and unauthorised flight. The CFI did not consider Grayson to be a man to make rash decisions or act in such an illogical manner. He had been a hard working quarryman all his life and was now in a position to enjoy the luxury of learning to fly. It is considered that having found the conditions in the training area unsuitable for practising his exercises he made a spur of the moment decision to overfly his intended strip. He stated that he had had no intention of flying to the property before he departed Grovedale and was aware that he had breached ANRs by leaving the training area and descending so low.

5. The cause of the accident was that the aircraft was flown at an unsafe height.