



Ref: 7730

**SOUTH AFRICAN CIVIL AVIATION AUTHORITY****ACCIDENT REPORT – EXECUTIVE SUMMARY**

<b>Aircraft Registration</b>	ZS-JEZ	<b>Date of Accident</b>	20 November 2003	<b>Time of Accident</b>	1615Z
<b>Type of Aircraft</b>	GRUMMAN G-164A	<b>Type of Operation</b>	Agricultural		
<b>Pilot-in-command Licence Type</b>	Commercial	<b>Age</b>	22	<b>Licence Valid</b>	Yes
<b>Pilot-in-command Flying Experience</b>	Total Flying Hours	2155.6	<b>Hours on Type</b>	615.3	
<b>Last point of departure</b>	Hoopstad Aerodrome				
<b>Next point of intended landing</b>	Hoopstad Aerodrome				
<b>Location of the accident site with reference to easily defined geographical points (GPS readings if possible)</b>					
On a farm approximately 5nm from Hoopstad					
<b>Meteorological Information</b>	CAVOK weather conditions. Wind speed and Temperature unknown				
<b>Number of people on board</b>	1	<b>No. of people injured</b>	Nil	<b>No. of people killed</b>	Nil

**Synopsis**

The commercial pilot was on a crop spraying detail, and had successfully completed a number of spray runs that morning but had to stop due to strong winds.

At approximately 1700Z, he continued to spray and had successfully completed spraying the first load before coming back for the second load. He was halfway with the second load when he smelt something similar to an electric short-circuit and soon thereafter as he approached the end of the field, the engine started to surge. He then applied full power and fine pitch before climbing gently and attempted to land immediately on a nearby road. The engine, however, failed at a height of approximately 50ft AGL.

He then leveled the aircraft and attempted to land on the same field that he had been spraying but there were trees in front of him. He stalled the aircraft over the trees and landed on the ground behind. During the landing the aircraft's main gear sank into the soft soil and the aircraft overturned and came to rest inverted.

The pilot sustained no injuries but the aircraft was extensively damaged.

The operator had a valid Aircraft Operating Certificate (Part 135) number G743D which was issued on 30 June 2003 with an expiry date of 17 April 2004. The last MPI was certified on 14 November 2003 at 7044.0 flying hours. The aircraft had accumulated a further 10.6 flying hours since the last MPI.

**Probable Cause**

The brass bearing of the impeller of the super charger failed which caused impeller blades to break with a resultant loss of power/engine failure resulting in a forced landing.