



Ref: 7819

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

Aircraft Registration	ZS-RHX	Date of Accident	13 June 2004		Time of Accident	0930Z
Type of Aircraft	Robinson R44 Astro		Type of Operation		Private	
Pilot-in-command Licence Type		Private	Age	43	Licence Valid	Yes
Pilot-in-command Flying Experience		Total Flying Hours	500		Hours on Type	62.7
Last point of departure		Nelspruit Aerodrome				
Next point of intended landing		Nelspruit Aerodrome				
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)						
Banana Farm near Hazyview (GPS: S 25°02.685' E 030°58.731')						
Meteorological Information		CAVOK, Temperature: + 20°C				
Number of people on board	1 + 3	No. of people injured	0		No. of people killed	0

Synopsis

The pilot accompanied by three passengers took off from Nelspruit Aerodrome on a local flight to God's Window then back to Nelspruit Aerodrome. When they were in the Hazyview area there was a smell of smoke in the cabin area. The pilot looked outside and could not see any smoke. He then checked the aircraft instruments and noticed that the oil pressure gauge indicated a decrease in oil pressure while the oil temperature was increasing. Shortly thereafter this condition worsened. This was followed by a complete engine failure. The pilot then executed a forced landing in a banana field. The aircraft sustained substantial damage and the occupants on board were not injured.

The engine was taken to an Aviation Maintenance Organisation (AMO) facility for further investigation. It was found that the number 6 piston pin plug had failed. The material from the number 6 piston pin plug picked up in the crankcases and caused the crankshaft to seize in the crankcases.

According to available records the last Mandatory Periodic Inspection (MPI) was certified on 31 March 2004 at 2168.4 total airframe hours. At the time of the accident the aircraft had accumulated a further 44.35 hours since the last MPI.

Probable Cause

The engine failure was as the result of the number 6 piston pin plug failing. The material from the failed piston pin plug number 6 picked up on the crankcases and caused the crankshaft to seize in the crankcases.