



National Transportation Safety Board Aviation Accident Final Report

Location:	LEPANTO, AR	Accident Number:	MKC87LA115
Date & Time:	06/02/1987, 0800 CDT	Registration:	N4943X
Aircraft:	Ayres S2R600	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PIC HAD TAKEN OFF FOR A LCL AERIAL OPERATION. ENROUTE PIC HAD AN ENGINE FAILURE AND MADE A FORCED LDG IN A MUDDY FIELD. PIC APPLIED BRAKES AND ACFT NOSED OVER. THE EXHAUST ROCKER ARM BOX ON NO. 3 CYLINDER WAS FOUND TO BE CRACKED KEEPING EXHAUST VALVE IN CLOSED POSITION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings

1. (C) ENGINE ASSEMBLY,ROCKER ARM/TAPPET - CRACKED
2. (F) ENGINE ASSEMBLY,VALVE,INTAKE - JAMMED

Occurrence #2: FORCED LANDING
Phase of Operation: CRUISE

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings

3. (C) TERRAIN CONDITION - SOFT

Factual Information

Pilot Information

Certificate:	Commercial	Age:	34, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	05/26/1987
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	6000 hours (Total, all aircraft), 2000 hours (Total, this make and model), 6000 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ayres	Registration:	N4943X
Model/Series:	S2R600 S2R600	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	5004R
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:	7 Hours	Engines:	1 Reciprocating
Airframe Total Time:	2267 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	R-1340-AN1
Registered Owner:	HELM FLYING SERVICE	Rated Power:	600 hp
Operator:	HELM FLYING SERVICE	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0800 CDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	JOHN R HRUBAN	Report Date:	05/09/1988
Additional Participating Persons:	JIM MONTGOMERY; LITTLE ROCK, AR		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).