Aviation Investigation Final Report

Location:	PRESCOTT, Arizona	**Accident Number:**	LAX93LA135
Date & Time:	February 23, 1993, 12:30 Local	**Registration:**	N9HD
Aircraft:	Downer Aircraft Industries KR-1	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE EXPERIMENTAL HOMEBUILT HAD ONLY BEEN OPERATED ABOUT 56 HOURS IN THE LAST 12 YEARS, WITH THE LAST FLIGHT PRIOR TO THE ACCIDENT LISTED IN THE AIRCRAFT LOG BOOK AS JUNE 16, 1992. THE PILOT MADE NO STATEMENT REGARDING THE ACCIDENT CIRCUMSTANCES. GROUND WITNESSES REPORTED HEARING AND OBSERVING THE AIRCRAFT DESCEND INTO A RESIDENTIAL AREA WITHOUT ANY APPARENT ENGINE POWER. FAA AIRWORTHINESS INSPECTORS EXAMINED THE AIRCRAFT AND REPORTED FINDING MANY DISCREPANCIES IN THE AIRCRAFT SYSTEM DESIGNS AND INSTALLATIONS. THE FUEL SYSTEM CONSISTED OF A RUBBERMAID FIVE GALLON CONTAINER CONNECTED TO THE ENGINE WITH PLASTIC TUBING AND OPERATED BY A HAND WOBBLE PUMP. THE CARBURETOR HEAT SYSTEM CONSISTED OF PVC PLUMBING PIPE HELD TOGETHER AND SECURED TO BOTH THE ENGINE EXHAUST SYSTEM AND THE CARBURETOR WITH RTV SEALANT. THE FAA INSPECTORS REPORTED THAT THE EXAMINATION OF THE REVMASTER VW ENGINE ITSELF REVEALED NO EVIDENCE OF A MECHANICAL MALFUNCTION. REVIEW OF FAA RECORDS REVEALED THAT THE PILOT'S MEDICAL HAD EXPIRED. THE PILOT HAD HELD HIS PRIVATE CERTIFICATE FOR 40 YEARS AND HAD FLOWN 290 HOURS IN THAT TIME. THE AVAILABLE PILOT AND AIRCRAFT RECORDS DISCLOSED THAT THE PILOT HAD NOT FLOWN IN THE LAST SEVEN MONTHS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE TOTAL LOSS OF ENGINE POWER FOR UNDETERMINED REASONS. A FACTOR IN THE ACCIDENT WAS THE LACK OF A SUITABLE LANDING AREA AT THE TIME OF THE POWER INTERRUPTION.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: CRUISE

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED
2. FUEL SYSTEM - IMPROPER
3. EXHAUST SYSTEM - IMPROPER
4. MAINTENANCE,INSTALLATION - INADEQUATE - MANUFACTURER
5. INSUFFICIENT STANDARDS/REQUIREMENTS - MANUFACTURER

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings
6. (F) TERRAIN CONDITION - RESIDENTIAL AREA

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - EMERGENCY

Factual Information

Pilot Information

Certificate:	Private	**Age:**	70,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Center
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Expired	**Last FAA Medical Exam:**	January 7, 1991
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	290 hours (Total, all aircraft), 15 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Downer Aircraft Industries	**Registration:**	N9HD
Model/Series:	KR-1 KR-1	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	001
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	March 24, 1992 Annual	**Certified Max Gross Wt.:**	750 lbs
Time Since Last Inspection:	6 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	56 Hrs	**Engine Manufacturer:**	Revmaster
ELT:		**Engine Model/Series:**	2100 CC
Registered Owner:	ROBERT O. WOODWARD	**Rated Power:**	80 Horsepower
Operator:	ROBERT O. WOODWARD	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	PRC ,5042 ft msl	**Distance from Accident Site:**	10 Nautical Miles
Observation Time:	13:52 Local	**Direction from Accident Site:**	1°
Lowest Cloud Condition:	25000 ft AGL	**Visibility**	65 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	220°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	11°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(PRC)	**Type of Flight Plan Filed:**	None
Destination:	(PRC)	**Type of Clearance:**	None
Departure Time:	10:30 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	34.619884,-112.41957(est)

Administrative Information

Investigator In Charge (IIC):	Rich, Jeff
Additional Participating Persons:	JOHN ELLER; SCOTTSDALE , AZ
Original Publish Date:	February 10, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=27936