



Aviation Investigation Final Report

Location:	SAN MARCOS, Texas	Accident Number:	FTW92LA054
Date & Time:	January 4, 1992, 16:55 Local	Registration:	N651AC
Aircraft:	ALVIN D. CAMPBELL KR-2	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT/BUILDER OF THE HOMEBUILT AIRCRAFT WAS ON A LOCAL FLIGHT TO DEMONSTRATE THE AIRCRAFT FLIGHT CHARACTERISTICS TO A PROSPECTIVE BUILDER. WHILE MANEUVERING, THE ONE PIECE PLEXIGLASS CANOPY SEPARATED FROM THE AIRFRAME DUE TO FAILURE OF THE HINGE SYSTEM, RESULTING IN AN INFLIGHT LOSS OF CONTROL. THE PILOT HAD MODIFIED THE CANOPY HINGE SYSTEM FROM THE STANDARD TWO HINGE SYSTEM, TO A FULL LENGTH PIANO WIRE HINGE SYSTEM. THE LOSS OF THE CANOPY IN SUCH A SHORT COUPLED FUSELAGE DISTURBED THE AIRFLOW TO THE POINT OF BLANKETING THE ELEVATORS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE MODIFICATION OF THE CANOPY HINGE SYSTEM WHICH RESULTED IN THE LOSS OF AIRCRAFT CONTROL DUE TO AN INFLIGHT CANOPY SEPARATION.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: MANEUVERING

Findings

1. (C) WINDOW,CANOPY - SEPARATION
2. (C) MAINTENANCE,MODIFICATION - PERFORMED - PILOT IN COMMAND

3. AIRCRAFT CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING

Findings

4. STALL/SPIN - ENCOUNTERED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - OPEN FIELD

Occurrence #4: FIRE

Phase of Operation: OTHER

Factual Information

Pilot Information

Certificate:	Private	Age:	40, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Expired	Last FAA Medical Exam:	September 30, 1989
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	413 hours (Total, all aircraft), 350 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	ALVIN D. CAMPBELL	Registration:	N651AC
Model/Series:	KR-2 KR-2	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	01
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	January 2, 2000 Unknown	Certified Max Gross Wt.:	1100 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	350 Hrs	Engine Manufacturer:	VOLKSWAGEN
ELT:	Installed, not activated	Engine Model/Series:	2180CC
Registered Owner:	ALVIN D. CAMPBELL	Rated Power:	85 Horsepower
Operator:	ALVIN D. CAMPBELL	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:	AUS ,1075 ft msl	Distance from Accident Site:	33 Nautical Miles
Observation Time:	16:51 Local	Direction from Accident Site:	235°
Lowest Cloud Condition:	Unknown	Visibility	10 miles
Lowest Ceiling:	Overcast / 6000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	15°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	NEW BRAUNFELS (3R5)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	16:30 Local	Type of Airspace:	Class G

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	On-ground
Total Injuries:	2 Fatal	Latitude, Longitude:	29.880006,-97.919357(est)

Administrative Information

Investigator In Charge (IIC):	Casanova, Hector
Additional Participating Persons:	WILLIAM C MCGEE; SAN ANTONIO , TX
Original Publish Date:	June 30, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=18432

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).