

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: LAX94LA160		Aircraft Registration Number: N189AC	
		Occurrence Date: 03/12/1994		Most Critical Injury: Fatal	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place MARANA		State AZ	Zip Code 85653	Local Time 1035	Time Zone MST
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer American Champion (ACAC)			Model/Series 8KCAB		Type of Aircraft Airplane
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On March 12, 1994, at 1035 mountain standard time, an American Champion 8KCAB, N189AC, collided with terrain while engaged in aerobatic maneuvers near Marana, Arizona. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft was destroyed in the ground collision sequence and the airline transport pilot, the sole occupant, sustained fatal injuries. The flight originated from the Avra Valley airport on the day of the accident at 1015 hours for a local area aerobatic flight.</p> <p>The accident was witnessed by several International Aerobatic Club judges, who were grading the pilot's aerobatic routine. According to the witnesses, the pilot performed the 1994 Intermediate Known Sequence, which was to be followed by a hammerhead turn course reversal to include a 1/4 roll on the up line and a 1/4 roll on the down line. After the hammerhead turn, the aircraft was descending on the vertical line and the witnesses did not see the pilot attempt to pull out until very near the ground when a 10- to 15-degree attitude change was noted. The witnesses said the engine continued at near full power throughout the maneuver to ground impact.</p> <p>According to a Federal Aviation Administration (FAA) inspector, ground scars and the extensively fragmented aircraft wreckage debris were found distributed on the flat desert terrain on a southeast to northwest line. A median bearing line through the ground scars and debris measured about 500 feet in length.</p> <p>At the request of the National Transportation Safety Board, the aircraft was examined by the holder of an FAA airframe and powerplant mechanic's certificate, who also holds an inspection authorization. According to his written report of the examination, all of the aircraft components were accounted for in the wreckage path. The entire flight control system was documented, with no discrepancies noted.</p> <p>An autopsy was performed by the Pima County Medical Examiner's Office, with specimens retained for toxicological analysis. The analysis was performed by the FAA Civil Aeromedical Institute, who reported negative results for alcohol and all screened drug substances.</p>					
FACTUAL REPORT - AVIATION					

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Landing Facility/Approach Information					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:					
Runway Surface Condition:					
Type Instrument Approach:					
VFR Approach/Landing: None					
Aircraft Information					
Aircraft Manufacturer American Champion (ACAC)		Model/Series 8KCAB		Serial Number 721-93	
Airworthiness Certificate(s): Acrobatic					
Landing Gear Type: Tailwheel					
Homebuilt Aircraft? No	Number of Seats: 2	Certified Max Gross Wt. 1800 LBS	Number of Engines: 1		
Engine Type: Reciprocating	Engine Manufacturer: LYCOMING	Model/Series: AEIO-360-H1A	Rated Power: 180 HP		
- Aircraft Inspection Information					
Type of Last Inspection Annual	Date of Last Inspection 10/1993	Time Since Last Inspection 84 Hours	Airframe Total Time 84 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated?	ELT Aided in Locating Accident Site?			
Owner/Operator Information					
Registered Aircraft Owner PAUL E. SHEPLEY		Street Address 13711 N. KINGAIR DRIVE			
		City TUCSON	State AZ	Zip Code 85737	
Operator of Aircraft MICHAEL P. ILYIN		Street Address 13050 CORSAIR DRIVE			
		City TUCSON	State AZ	Zip Code 85037	
Operator Does Business As:			Operator Designator Code:		
- Type of U.S. Certificate(s) Held: None					
Air Carrier Operating Certificate(s):					
Operating Certificate:			Operator Certificate:		
Regulation Flight Conducted Under: Part 91: General Aviation					
Type of Flight Operation Conducted: Personal					

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First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 53
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Sex: M	Seat Occupied: Front	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport; Flight Instructor; Commercial; Flight Engineer

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: Glider

Instrument Rating(s): Airplane

Instructor Rating(s): Airplane Multi-engine; Airplane Single-engine; Instrument Airplane

Type Rating/Endorsement for Accident/Incident Aircraft? No	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 12/1993
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	20000	45								
Pilot In Command(PIC)		45								
Instructor										
Last 90 Days		35								
Last 30 Days		10								
Last 24 Hours		1								

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? Yes	Second Pilot? No
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Flight Plan/Itinerary

Type of Flight Plan Filed: None	
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Departure Point AVRA VALLEY	State AZ	Airport Identifier E14	Departure Time 1015	Time Zone MST
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Destination Local Flight	State	Airport Identifier	
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Type of Clearance: None

Type of Airspace: Class G

Weather Information

Source of Briefing:
No record of briefing

Method of Briefing:

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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
TUS	1055	MST	2641 Ft. MSL	22 NM	124 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			6000 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None			0 Ft. AGL	Visibility: 40 SM	Altimeter: 30.00 "Hg
Temperature: 17 °C	Dew Point: 2 °C	Wind Direction: 360		Density Altitude: Ft.	
Wind Speed: 4	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility: None					
Type of Precipitation: None					

Accident Information		
Aircraft Damage: Destroyed	Aircraft Fire: None	Aircraft Explosion: None

Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot	1				1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -	1				1
Other Ground	0	0	0		0
- GRAND TOTAL -	1	0	0		1

National Transportation Safety Board

FACTUAL REPORT

AVIATION



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Occurrence Date: 03/12/1994

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

JEFF RICH,

Additional Persons Participating in This Accident/Incident Investigation:

MARYELLEN CLINKINGBEARD
FAA FSDO
SCOTTSDALE, AZ