		NTSB ID: LAX97LA117		Aircraft Registration Number: N5027F	
		Occurrence Date: 03/03/1997		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place ALPINE		State CA	Zip Code 90901	Local Time 1438	Time Zone PST
Airport Proximity: Off Airport/Airstrip		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Bellanca		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 3, 1997, at 1438 hours Pacific standard time, a Bellanca 8KCAB, N5027F, lost engine power and collided with a fence during a forced landing on the Viejas Indian Reservation near Alpine, California. The airplane sustained substantial damage and the two flight instructors were not injured. The airplane was being operated as an aerobatic instructional flight by Scandanavian Flight Academy, San Diego, California, when the accident occurred. The local flight originated from Montgomery Field, San Diego, about 1345. Visual meteorological conditions prevailed at the time.</p> <p>The pilots were conducting flight instructor training and practicing power on and power off aerodynamic stalls of the airplane. They had completed six stalls without incident. They planned the seventh stall to be an uncoordinated stall (aircraft out of trim). After the stall the right wing dropped, the flight instructor took the controls and performed a normal spin recovery by leveling the wings with the rudder and reducing power.</p> <p>The airplane was at 6,000 feet msl when the instructor added throttle; however, there was no power. The propeller was windmilling and the pilot receiving the training attempted to restart the engine while the flight instructor selected a forced landing area. Both pilot's smelled the odor of fuel in the cockpit and there was no obvious evidence of a leak.</p> <p>The flight instructor turned the fuel selector off and brought the mixture to idle cutoff. The magnetos were still switched on and the engine began to sputter for 5 to 10 seconds. The flight instructor turned the fuel selector back on and began to move the mixture forward. The engine started when the mixture moved 1/2 inch forward, but quit again. The instructor attempted to start the engine again several more times without success.</p> <p>The flight instructor decided to then secure the engine and concentrate on landing because the airplane's altitude above the ground was getting low over mountainous terrain. The instructor selected a hard surface road bounded by a fence on both sides. During the approach, the airplane encountered windy conditions and downdrafts. The instructor decided to land on another portion of the road which had a 90-degree bend. The left main landing gear tire rolled into the soft shoulder while exiting the 90-degree bend during the ground roll. The airplane ground looped into the fence.</p> <p>The engine was test run on March 13, 1997, utilizing the aircraft systems. There was no evidence of mechanical failure or malfunction found with the engine.</p> <p>The airplane's fuel system was examined. Particle contamination was found in the fuel in the header tank when it was drained. The inverted fuel vent was found to be over 50 percent obstructed at an elbow fitting. The obstruction was a solid material that covered the inlet. During the examination, another particle fell out of the elbow. The shape of the particle conformed to the</p>					
FACTUAL REPORT - AVIATION					
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National Transportation Safety Board

## FACTUAL REPORT

AVIATION

NTSB ID: LAX97LA117

Occurrence Date: 03/03/1997

Occurrence Type: Accident

## Narrative (Continued)

shape of the unobstructed portion of the elbow inlet and the edge of the obstruction.

Review of the airplane's maintenance records revealed the airplane's engine was installed on January 20, 1997, after an overhaul. The engine had been removed about 1 month prior, and during that period the fuselage was stored.


The operator's records disclosed two instances of unexplained power loss events with the aircraft:


On February 18, 1997, while practicing aerodynamic stalls the engine quit, but was easily restarted. The maintenance facility that installed the engine adjusted the engine's idle from 500 to 700 rpm as a corrective measure.

On February 19, 1997, the engine quit again while on final approach when the throttle was retarded to the idle position. The maintenance facility again adjusted the idle rpm, this time to 900 rpm. After the adjustment, the engine would not accelerate properly. The maintenance facility then removed the fuel servo and sent it to be overhauled. The fuel servo had been previously overhauled in conjunction with the engine and had accumulated less than 30 flight hours.

The airplane was flown .7 of an hour after the fuel servo was replaced. The accident flight was the first after the test flight.

The wreckage was released to the representatives of the owner on March 13, 1997.

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: LAX97LA117			
		Occurrence Date: 03/03/1997			
		Occurrence Type: Accident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type: Dirt					
Runway Surface Condition:					
Type Instrument Approach: NONE					
VFR Approach/Landing: Forced Landing					
<b>Aircraft Information</b>					
Aircraft Manufacturer Bellanca		Model/Series 8KCAB		Serial Number 571-79	
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-320-E2B	Rated Power: 150 HP		
- Aircraft Inspection Information					
Type of Last Inspection 100 Hour	Date of Last Inspection 12/1996	Time Since Last Inspection 17 Hours	Airframe Total Time 1742 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner AMOIA, STEVEN M.		Street Address 7554 HIGH STREET			
		City LA MESA	State CA	Zip Code 91941	
Operator of Aircraft SCANDANAVIAN FLIGHT ACADEMY		Street Address 8665 GIBBS DRIVE, SUITE 100			
		City SAN DIEGO	State CA	Zip Code 92123	
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: Instructional					

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: LAX97LA117
	Occurrence Date: 03/03/1997
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 26
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Sex: M	Seat Occupied: Front	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Flight Instructor; Commercial

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

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): Airplane Single-engine

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--no waivers/lim.	Date of Last Medical Exam: 01/1997
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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	1017	107	993	24	56	32	44			
Pilot In Command(PIC)	954	105	930	17	55	32	44			
Instructor	774	100	774		48	25				
Last 90 Days	74	46	62	12		6				
Last 30 Days	41	20	41			4				
Last 24 Hours	1	1	1							

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

Type of Flight Plan Filed: None

Departure Point SAN DIEGO	State CA	Airport Identifier MYF	Departure Time 1345	Time Zone PST
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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:

Method of Briefing:

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: LAX97LA117
	Occurrence Date: 03/03/1997
	Occurrence Type: Accident

<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
SEE	1438	PST	385 Ft. MSL	12 NM	250 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			600 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None			0 Ft. AGL	Visibility: 25 SM	Altimeter: 29.00 "Hg
Temperature: 20 °C	Dew Point:	°C	Wind Direction: 260		Density Altitude: Ft.
Wind Speed: 7	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					

<b>Accident Information</b>		
Aircraft Damage: Substantial	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				1	1
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -				2	2
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	2	2

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: LAX97LA117

Occurrence Date: 03/03/1997

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

THOMAS H. WILCOX

Additional Persons Participating in This Accident/Incident Investigation:

WILLIAM GAMBLE  
WP-SAN-FSDO  
SAN DIEGO, CA 92123

DANIEL GAYET  
SCANDINAVION FLIGHT ACADEMY  
LA MESA, CA 91941

MARK W PLATT  
TEXTRON LYCOMING  
WILLIAMSPORT, PA 17701