NTSB ID: LAX98FA297 Aircraft Registration Number: N486W

Occurrence Date: 09/18/1998 Most Critical Injury: Fatal

Occurrence Type: Accident Investigated By: NTSB

Location/Time

Nearest City/Place
SAN JOSE
SAN JOSE
SAN JOSE
SAN JOSE
SAN JOSE
State
CA
State

Aircraft Information Summary

Aircraft Manufacturer Model/Series Type of Aircraft

Beech 35-B33 /35-B33 Airplane

Revenue Sightseeing Flight: No Air Medical Transport Flight: No

#### Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

HISTORY OF FLIGHT

On September 18, 1998, about 2235 hours Pacific daylight time, a Beech 35-B33, N486W, descended into hilly terrain in San Jose, California. The aircraft was destroyed during the impact sequence and postcrash fire. The pilot and passenger both received fatal injuries. The aircraft was being operated as a personal flight by the pilot/owner under 14 CFR Part 91 when the accident occurred. The flight originated from the Reid-Hillview of Santa Clara County Airport, San Jose, about 2220. Visual meteorological conditions prevailed and no flight plan was filed.

An eyewitness, who was looking out her window about 2235 on the night of the accident, reported seeing an aircraft west of the Anderson Reservoir. She stated that the aircraft's nose was pointed downward and that its red and green lights were spiraling around as it descended. She was able to watch it for about 5 seconds before it disappeared behind the hill west of the reservoir. After it disappeared she saw a brief flash of light against the sky. Her window was open but she reported that she did not hear any noises that she could associate with the aircraft. She said that the weather at the time was clear with calm winds. Her home is located 3.7 miles south of the accident site.

Another witness, who was camping about 0.25 miles southeast of the crash site, reported hearing the sound of an aircraft flying overhead from south to north. He stated that the he had gone to bed about 2200 that night and was awakened by loud sustained engine sounds which he described as "like a kamikaze in a dive." The aircraft sounds terminated after a few seconds into what the witness described as the sound of "2 cars hitting each other." He did not recall hearing any other sounds or smelling any unusual odors following the impact noise and he went back to sleep. He said that he did not investigate the noise at the time because he was sleepy and was not entirely certain that he had heard what he thought he heard. He said that the weather at the time he went to bed was clear with calm winds.

About 1500 on September 19, 1998, another camper from this group reported seeing a column of smoke about 0.25 miles northwest of their campsite. As he was en route to notify fire officials, he told his friends about the smoke. They then proceeded toward the source of the smoke. Upon their arrival they discovered the scene of an aircraft crash that was still smoldering.

### PILOT INFORMATION

The pilot obtained his private pilot certificate with airplane single engine land rating on May 18, 1974. He obtained an add-on rotorcraft-helicopter rating on May 20, 1987. The pilot's last reported biennial flight review was conducted in a Hiller UH-12B helicopter.

The last pilot logbook entry was dated May 28, 1997, the date of the last biennial flight review.

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The pilot's wife reported to Federal Aviation Administration (FAA) inspectors that it was his custom to wash his aircraft at night to avoid sun-dried water spots, and then to fly it in order to dry it off. She had accompanied him on numerous occasions and stated that he flew south from Reid-Hillview with the total flight time generally lasting about 15 to 20 minutes. She also stated that he never allowed anyone else to fly the aircraft.

According to the aircraft logbook, the pilot would have averaged about 1.8 flight hours per month in the airplane during the past 11.5 months.

### AIRCRAFT INFORMATION

Fueling records obtained from Reid-Hillview showed that the pilot purchased 30 gallons of 100-octane low lead (LL) at 2123 on the night of the accident.

The aircraft was equipped with a throw-over yoke. The hole corresponding to the yoke's locking pin at the left pilot's position showed elongation.

The aircraft was equipped with an Edo-Aire Mitchell (a.k.a. Century III) two-axis autopilot (pitch and roll). The autopilot "AP Mode Select Panel" switch was found in the "heading select" position. The manufacturer stated that it takes approximately 20 pounds of force on the control wheel to slip (override) the clutches on either the pitch or roll servos. There is no provision for an automatic disconnect based on pilot override, but there are autopilot disconnect switches located on the control wheel and on the instrument panel. It was not possible to determine if the autopilot was engaged at the time of the accident.

As of an annual inspection on June 5, 1996, the aircraft had accumulated a total of 3,844.41 hours. It flew an additional 62.43 hours until its latest annual inspection on October 1, 1997. After the last annual, it flew another 20.76 hours until the time of the accident.

### METEOROLOGICAL INFORMATION

Weather observations reported clear skies with no visibility restrictions. There was no moon illumination at the time of the accident. Ground lights from the city of San Jose were located north and west of the accident site.

### AIRPORT INFORMATION

The tower at Reid-Hillview closed at 2200 on the evening of the accident. There was no record of the accident aircraft taking off prior to that time on the night of the accident.

### WRECKAGE AND IMPACT INFORMATION

The accident site was located at 37 degrees 11.155 minutes north longitude and 121 degrees 39.252 minutes west latitude. The site sloped downward in an approximately 16-degree grade toward the north. The site elevation was estimated about 1,000 feet msl. The terrain was covered with oak trees and scrub oak. The debris field was along a 015-degree bearing from the first indication of contact, with 45-degree slashes in the limbs of scrub oaks, to the final position of engine and fuselage fragments. The distance from the farthest slashed branch to the initial ground scar was about 30 feet. The debris field was approximately 100 feet wide and 200 feet long.

The propeller hub and two blades were found in the initial ground scar. The hub had stripped from the crankshaft mounting flange. One propeller mounting stud remained in the hub. The remaining five holes in the hub showed deformation opposite the direction of prop rotation. The spinner was crushed around the hub and contained wood fragments. Both blades that remained attached to the hub

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showed evidence of forward bending, chordwise scuffing and polishing, twisting, and leading edge and tip damage. In addition, one blade also showed S-bending and diagonal scratching, while the other showed longitudinal scratching. The separated blade showed evidence of chord-wise, lateral and diagonal scratching, S-bending, and leading edge damage.

The engine case was broken and all six cylinders had separated. The first engine component encountered along the debris path was the forward section of the crankshaft (CC8 forward) and the No. 6 cylinder, connecting rod, and piston. The No. 6 rod showed evidence of beginning to separate from its cap but, although bent aft, it still remained attached. The No. 6 piston and cylinder did not show any unusual wear markings. The No. 4 main journal and the No. 6 rod journal were smooth and did not show scoring or discoloration.

The next section of the engine along the debris path included the aft portion of the crankshaft (CC8 aft), the Nos. 1 and 2 cylinders, connecting rods and pistons along with the Nos. 3 and 4 connecting rods and pistons. The Nos. 3 and 4 pistons showed evidence of impact, with several of the piston rings separated. The aft section of the camshaft was also found. All the lobes were smooth and shiny with no evidence of flat spots. Nearly all of the right side of the crankcase was missing, as was about half of the left side.

The No. 4 cylinder was the next engine component found in the debris field. The Nos. 3 and 5 cylinders, still attached to a portion of the right crankcase, were the next to be found, lying along the debris path centerline.

The No. 5 connecting rod and piston had separated from the crankshaft and were located at the far end of the debris field. The No. 5 rod cap was missing.

The accessory section was present with evidence of all the accessories and accessory drive gears having broken away except for the engine oil pump. The fuel pump drive coupling was found with the case relatively undamaged. The fuel pump rotor was found near the far end of the debris field and it, too, appeared relatively undamaged.

Two of the main bearing shells and one No. 4 main bearing shell were found. They exhibited scoring, pitting, and wear with underlying copper visible.

The fuel control was broken away from its mounting pad and had evidence of being involved in a fire. The screen was removed and found to be clean and free of foreign material.

The fuel manifold valve was separated from the engine. The top cover showed evidence of being deformed from the inside. The cover was removed and the marks on the inside appeared to correlate to the valve shaft. The diaphragm appeared undamaged and the screen was clean.

The throttle body was separated from the engine. The butterfly valve was found in the closed position.

The top spark plugs were removed and inspected. According to the Champion Spark Plugs Check-A-Plug chart, they showed normal coloration and wear patterns.

The engine oil screen was removed and was found to be clean and free of foreign material.

The drive couplings on both vacuum pumps were found intact.

The forward section of the camshaft was located after aircraft recovery. Its lobes were smooth and shiny with no evidence of flat spots.

The shroud was removed from the muffler. The muffler did not show any evidence of blockage or

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deterioration.

Fragments of the aircraft cabin, including the front and rear carry-through assemblies, flight control cables, electrical wiring and portions of the instrument panel, were found suspended in a tree. The propeller control handle was extended 2.25 inches. The front seats were separated from their tracks and were fragmented. The only seat attachment foot that was recovered showed lateral deformation. The fuel selector handle and valve were found in the 6 o'clock position, corresponding to a position between the left and right main fuel tanks.

Fragments of the left wing were found on the left side of the debris field. Both flight control surfaces (aileron and flap) were separated. The aileron bell crank arms were separated and the bell crank had been torn away. The flap actuator was found at 1.75 inches, which corresponds to flaps fully retracted. Sections of the control cable were missing and control continuity to the left wing could not be established.

Fragments of the right wing were found on the right side of the debris field. Both flight control surfaces (aileron and flap) were separated. The aileron bell crank arms were separated and the bell crank had been torn away. The flap actuator was found at 1.75 inches, which corresponds to flaps fully retracted. Sections of the control cable were missing and control continuity to the right wing could not be established.

The empennage was found leaning against a tree. Two elevator counterweights and one rudder counterweight were located at the accident site. The right elevator trim actuator was extended 1.625 inches while the left actuator was extended 1.25 inches. These dimensions correspond to a trim tab position of 1-degree tab up and 12 degrees tab down respectively. The flight control cables and bell cranks associated with elevator and rudder controls were separated. The elevator bell crank had been torn away. Control continuity to the empennage flight control surfaces could not be established.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was conducted on September 21, 1998, by the Santa Clara County Coroner's Office, with specimens retained for toxicological examination. The toxicological results were negative for all screened drug substances. The volitiles detected in muscle tissue were attributed to postmortem ethanol production by the FAA Toxicology and Accident Research Laboratory manager.

### FIRE

There was evidence of several individual fires within the impact area. Although a California Department of Forestry fire engine responded to the scene on the afternoon of September 19, 1998, the fires continued smoldering through the afternoon of September 20, 1998.

#### SURVIVAL ASPECTS

The onboard emergency locator transmitter (ELT) was destroyed during the impact. The ELT battery replacement due date was June 1999.

After the aircraft was recovered, three seat belt buckles were found in the wreckage. The first latch was unbuckled but remained attached to its webbing. The second latch was buckled; however, all the webbing was burned away. The third latch was unbuckled and was separated from its webbing with no evidence of fire. The fourth latch was not located.

#### TESTS AND RESEARCH

A review of recorded radar data was conducted by the FAA Quality Assurance (AWP-533), Western

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Region, at the request of Safety Board investigators. No radar data could be identified with the accident aircraft.

### ADDITIONAL INFORMATION

The aircraft wreckage was recovered by Skie Aircraft, San Jose, and transported to the Air One hangar at San Jose International Airport for further examination. At the conclusion of the examination, the wreckage was transported to the Skie Aircraft facility in Campbell, California for storage.

The aircraft wreckage was released to Inflight Aviation Adjustment Group, Fullerton, California, a representative of the registered owner on February 3, 2000.

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AVIATION	rrence Type	e: Ac	cident									
Landing Facility/Approach In	formation											
Airport Name			Airport ID:	A	irport Elevation	Rur	way Used	Runwa	y Lengt	h	Runv	way Width
REID-HILLVIEW OF SANTA C	L	RHV		Ft. MSL	0							
Runway Surface Type:						·						
Runway Surface Condition:												
Approach/Arrival Flown:												
VFR Approach/Landing: None												
Aircraft Information												
Aircraft Manufacturer			Mode	l/Ser	ies				Serial I	Number		
Beech			35-B	333	/35-B33				CD-4	83		
Airworthiness Certificate(s): Normal												
Landing Gear Type: Retractable	- Tricycle											
Amateur Built Acft? No	Certifie	Certified Max Gross Wt. 3000 LBS						r of En	gines	 :: 1		
Engine Type: Reciprocating	-	Engine Manufacturer: Model/Series: IO-470-N							Rated Power: 260 HP			
- Aircraft Inspection Information												
Type of Last Inspection	Date of Las	st Ins	spection	nce Last Inspe	Airfrar	ne To	otal Time					
Annual	10/1997	10/1997 21 H					ours 3927 Hours					
- Emergency Locator Transmitter (	ELT) Information											
ELT Installed?/Type Yes /			ELT Opera	ELT Operated? No ELT Aided in Locating Accident Site?								
Owner/Operator Information												
Registered Aircraft Owner		Street	Street Address 1273 KARIE ANN WAY									
GARY LEE LEWIS			City SAN JOSE								e	Zip Code 95118
			SAN JOSE CA 95118 Street Address									
Operator of Aircraft					1273 KARIE <i>A</i>	ANN W	AY					
GARY LEE LEWIS	City SAN JOSE								e	Zip Code 95118		
Operator Does Business As:			Operator Designator Code:									
- Type of U.S. Certificate(s) Held: 1	None					'						
Air Carrier Operating Certificate(s):	:											
Operating Certificate: Operator Certificate:												
Regulation Flight Conducted Under: Part 91: General Aviation												
Type of Flight Operation Conducted	d: Personal											
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	AVIATI	ON	Occurrence Type: Accident												
First Pilot	Information														
Name	City					Sta	ite	Date of E	Birth	Age					
On File						On F	ile					File	On File		58
Sex: M				Се	rtifica	te Numl	per: On F	-ile	<b>'</b>						
Certificate(s): Private															
Airplane Ra	ating(s): Sing	le-engine L	and												
Rotorcraft/Glider/LTA: Helicopter															
Instrument Rating(s): None															
Instructor Rating(s): None															
Current Biennial Flight Review?															
Medical Ce	rt.: Class 2	Medica	al Cert. Status	s: Valid Me	dicalw/ wa	aivers/	lim.			Date of L	ast M	edical E	xam: 03	/1997	
I															
- Flight Tim	- Flight Time Matrix  All A/C  This Make and Model				Airplane Mult-Engine		ight Instru		Instrume	ument Simulated		Rotorcraft	Gli	ider	Lighter Than Air
Total Time		2200													
Pilot In Cor	nmand(PIC)														
Instructor						-					_		$\perp$		
Instruction									_		_				
Last 90 Day						+					_		-		
Last 30 Day	•					-			-		_		-		
Last 24 Ho Seatbelt Us		Shou	l ulder Harness	Head? Unk	nown		Toxico	logy Pe	rforme	formed? Yes Second Pilot? No					
		Griot					TOXICO	logy i c		- 1 G3	•		ocona i iii	λ: NO	
	n/Itinerary														
Departure F	ght Plan Filed: No	one					l 01-11-		Δ:	4. I al a as C.C.		D	otomo Tino		Time Zone
	Accident/Incide	ent Location							RHV	rirport Identifier		Departure Time 2220			PDT
Destination							State Airp			irport Identifier					
Local Flight									7 III port Idol Iulioi						
Type of Cle	earance: None							•							
Type of Air	space: Class	E													
Weather	Information														
Source of V	Wx Information:														
No record of briefing															
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	0	ccurrenc	: Accide	ent										
Weather	Information													
WOF ID	Observation Time	Time Zone	WOI	F Elevati	on	WOF	Distance Fro	om Acci	dent Site		Direction From Accident Site			
2.10				<b>50 5</b>	- 401				47			440.5		
SJC	2153	PDT		58 Ft.	MSL			17 NM		113 Deg. Mag.				
Sky/Lowes	st Cloud Condition: Clear	r					0 Ft. A	\GL	Condition o	of Ligh	nt: Night/D	ark		
Lowest Ce	eiling: None			0 Ft.	AGL	Vis	ibility:	10	SM	Alti	meter:	29.00	"Hg	
Temperatu	ure: 17 °C [	Dew Point:		14 °C	14 °C Weather Conditions at Accident Site: Visual Conditions									
Wind Direct	otion: 330	Wind Sp	eed: 4			Wi	ind Gusts:							
Visibility (R	RVR): 0 Ft.	Visibility	(RVV)	0	SM									
Precip and	d/or Obscuration:													
Accident	Information													
	mage: Destroyed		Air	rcraft Fire		ınd			Aircraft Exp	olosio	n None			
Allorant Dai				Clair i ii.					Alloran Exp	100.0.	1110110			
				Τ	$\overline{}$		T	$\neg$						
	mmary Matrix	Fatal	Serious	Mino	r	None	TOTAL	4						
First Pil		1		<del> </del>	$\rightarrow$			1						
Second	d Pilot			<del> </del>	$\rightarrow$			_						
Studen	t Pilot			<del> </del>	$\rightarrow$			_						
Flight Ir	nstructor			<u> </u>	$\rightarrow$		<u> </u>	_						
Check I	Pilot			<u> </u>	$\perp$			_						
Flight E	Engineer			<u> </u>	$\bot$			╛						
Cabin A	Attendants				$\perp$									
Other C	Crew				$^{-}$		7	_						
Passen	ngers	1						1						
- TOTAL A	ABOARD -	2						2						
Other G	Ground Ground	0		0	0			0						
- GRANE	D TOTAL -	2		0	0			2						

National Transportation Safety Board

## FACTUAL REPORT AVIATION

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Investigator-In-Charge (IIC)

ROBERT R. CRISPIN

Additional Persons Participating in This Accident/Incident Investigation:

ROBERT J CARNATHAN SAN JOSE, CA

PAUL E YOOS WICHITA, KS

R S BOYLE ARVADA, CO