



# **Aviation Investigation Final Report**

Location: San Pedro, California Accident Number: LAX04LA110

Date & Time: January 31, 2004, 09:45 Local Registration: N192S

Aircraft: Tailwind W-8 Aircraft Damage: Destroyed

**Defining Event:** 1 Fatal

Flight Conducted Under: Part 91: General aviation - Personal

## **Analysis**

Shortly after departure, the airplane started a shallow descent over the ocean, which continued until it impacted the water. The autopsy revealed that the pilot had severe atherosclerotic heart disease and several stents implanted, as well as an internal defibrillator. The pilot's personal medical records revealed that he had a past medical history of "hypercholesterolemia, hypertension, obesity, sleep apnea, gastroesophageal reflux disease, prostrate carcinoma, radiation colitis, a possible cerebrovascular accident, and mild dementia of Alzheimer's type." Post-accident toxicology testing revealed the presence of prescription medications for dementia and for heartburn. Six months prior to the accident the pilot reported that he did not have a notable medical history and that he was not taking prescription medication. After examining the internal defibrillator, a cardiologist stated that he could find no evidence of an arrhythmic death, nor any relation to the implanted defibrillator. Investigators observed no evidence of premishap mechanical malfunctions during the examination of the engine or airframe.

## **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's incapacitation during descent, which resulted in a loss of control and an in-flight collision with water.

### **Findings**

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE

#### Findings

1. (C) AIRCRAFT CONTROL - NOT POSSIBLE - PILOT IN COMMAND

2. (C) INCAPACITATION - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

#### Findings

3. TERRAIN CONDITION - WATER

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#### **Factual Information**

#### HISTORY OF FLIGHT

On January 31, 2004, about 0945 Pacific standard time, an experimental Tailwind W-8, N192S, operated by the pilot, experienced an in-flight loss of control and impacted the ocean near San Pedro, California. The pilot was operating the airplane under the provisions of 14 CFR Part 91. The airline transport pilot, the sole occupant, sustained fatal injuries; the airplane was destroyed. The personal local flight departed Compton/Woodley Airport, Compton, California, at an unknown time. Visual meteorological conditions prevailed, and no flight plan had been filed.

In a telephone interview with a Safety Board investigator, Coast Guard personnel stated that they received a report of an aircraft crash in the Pacific Ocean, near Carbrillo Break. After initiating a search, they discovered the wreckage several hours later, where it was submerged about 45 feet below the ocean surface. Witnesses reported to the Coast Guard that they observed the airplane in a shallow descent, which continued until the airplane impacted the water. One witness remarked that it appeared that the airplane was landing in the water; the witness did not observe any attempt by the pilot to egress after it came to a stop in the water and began to sink.

#### PERSONNEL INFORMATION

The pilot was a retired airline captain and held an airline transport pilot certificate, with several type ratings for a variety of jetliners. The pilot's personal flight records were not provided to the Safety Board investigator for examination. In an application for an aviation medical certificate in July 2003, the pilot reported that his total flight time was 29,000 hours, of which 55 were in the pervious 6 months.

#### AIRCRAFT INFORMATION

The airplane's last special airworthiness certificate was issued in 1997, in the amateur-built experimental category. Since 1999, the airplane has been registered in the name of the pilot's friend.

During an interview with a Safety Board investigator, the friend who the airplane is register to, stated that the pilot was a partner in owning the accident airplane, as well another airplane. He further stated that he and the pilot had an agreement that that pilot would not fly the airplane solo.

#### METEROROLOGICAL INFORMATION

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At 0945, Long Beach Automated Surface Observing System (ASOS), located about 9 statute miles on a 235 degree bearing from the accident site, reported the following weather conditions: few clouds at 3,000 feet and scattered clouds at 10,000 feet; visibility 10 miles; wind 360 degrees at 7 knots; and temperature 16 degrees Celsius.

#### WRECKAGE AND IMPACT

With the assistance of the Coast Guard personnel and local municipal authorities, the main wreckage was recovered from the Pacific Ocean off of San Pedro. The wreckage was at the global positioning satellite (GPS) coordinates of 33 degrees 42.062 minutes north latitude and 118 degrees 16.448 minutes west longitude. The wreckage was transported to a hangar and retained for a later examination.

#### MEDICAL AND PATHOLOGICAL INFORMATION

The Los Angeles County Department of Coroner Medical Examiner performed an autopsy on the pilot. The autopsy report stated that the cause of death was "blunt injuries." The report also noted the pilot had "severe atherosclerotic heart disease." In the description of the cardiovascular system, it stated the heart "is markedly enlarged weighing 640 grams due to left ventricular wall hypertrophy." The autopsy revealed that the pilot had several stents implanted, as well as an internal cardioverter/defibrillator.

A review of personal medical records revealed, that, according to the pilot's physician, the pilot had a past medical history of "hypercholesterolemia, hypertension, obesity, sleep apnea, gastroesophageal reflux disease, prostrate carcinoma, radiation colitis, a possible cerebrovascular accident, and mild dementia of Alzheimer's type." On July 9, 2003 the pilot's physician further stated that the pilot was taking 6 different medications, including Aricept, Celebrex, and Lipitor.

The pilot's most recent Federal Aviation Administration (FAA) medical examination was performed on July 17, 2003, when the pilot applied for a third class airmen medical certificate. On the application, in response to the question "Do you currently use any medication (Prescription of Nonprescription)," the pilot checked the box "yes" and listed "Centrum Silver vitamins." Under "Medical History," the pilot checked "no" for all of the conditions listed, including specifically:, Dizziness or fainting spell; Heart or vascular trouble; High or low blood pressure; Stomach, liver, or intestinal trouble; Neurological disorders, epilepsy, seizures, stroke, paralysis, etc.; Mental disorders of any sort, depression, anxiety, etc.; Admission to hospital; or Other illness, disability, or surgery.

The FAA's Civil Aeromedical's Institute (CAMI) Forensic Toxicological and Accident Research Center, Oklahoma City, Oklahoma performed a toxicological test on samples from the pilot, with negative results for carbon monoxide, cyanide, and ethanol. The toxicology report did reveal positive results for the following: "LANSOPRAZOLE present in Blood and Lung;

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DONEPEZIL present in Blood and Liver; CHLORPHENIRAMINE detected in Liver, but not Blood."

A cardiologist performed a post mortem forensic cardiology/cardiac electrophysiology evaluation of the internal defibrillator. In part, the cardiologist stated that the "evaluation of the device revealed normal function and no evidence of any correlated event." He further stated that he could not find "evidence of an arrhythmic death, nor any relation to the implanted defibrillator."

The Safety Board's Medical Officer reviewed the medical records obtained from the pilot's physicians and the FAA medical records, as well as the medical examiner's autopsy report. For additional information relating to the pilot's medical condition, see the Medical Officer's extraction which is contained in the docket for this accident.

#### TESTS AND RESEARCH

Following recovery, Safety Board investigators examined the airplane at a private hangar in Compton, California. As well as FAA inspectors, a manufacturer's representative from Textron Lycoming assisted with the examination.

#### Airframe Examination.

The left side of the cockpit panel was crushed in, toward the firewall, creating a large semicircular impression. The shoulder harnesses were tucked behind the front seats, the buckle and straps remaining independently intact.

Investigators established control continuity from the cockpit to the ailerons, elevator and rudder surfaces.

#### Engine Examination.

The Lycoming engine O-290-G4, serial number 5720-24, sustained impact damage and the case revealed cracks in several locations. The energy damage signatures, including crushing, were observed at the forward bottom section of the engine, encompassing the exhaust system and carburetor. The two-bladed fixed pitch wooden propeller remained attached to the crankshaft flange, with only 1/3 of both propeller blades remaining, splintered at their ends. The propeller spinner was unevenly crushed aft, leaving one side almost flush with the propeller blades and the other with a protruding lip.

Investigators removed and examined the top spark plugs, which exhibited signatures consistent with having been subject to the corrosive effect of the salt-water environment. The spark plug electrodes were undamaged, and, according to the Champion Spark Plugs Check-A-Plug chart AV-27, were consistent with normal operation.

Investigators established continuity of the valve and gear train by rotating the crankshaft via

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the crankshaft flange (exerting force on the splintered propeller blades); they detected compression in all cylinders. Investigators removed the accessory case, revealing an intact alignment dowel.

The magnetos were securely attached to their respective mounting flanges. Investigators disassembled the magnetos, which revealed internal contamination of salt water; they noted no evidence of internal damage.

Investigator observed no evidence of pre-mishap mechanical malfunctions during the examination of the engine.

#### **Pilot Information**

Certificate:	Airline transport	Age:	74,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medicalw/ waivers/lim	Last FAA Medical Exam:	July 17, 2003
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	29000 hours (Total, all aircraft)		

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## **Aircraft and Owner/Operator Information**

Aircraft Make:	Tailwind	Registration:	N192S
Model/Series:	W-8	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	001-WS
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	December 23, 2003 Condition	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	0-290-G4
Registered Owner:	On file	Rated Power:	85 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	LGB,60 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	09:56 Local	Direction from Accident Site:	55°
<b>Lowest Cloud Condition:</b>	Few / 3000 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	7 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	36°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.92 inches Hg	Temperature/Dew Point:	16°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	Compton, CA (CPM)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

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## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	33.70111,-118.274169

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#### **Administrative Information**

Investigator In Charge (IIC):	Plagens, Howard	
Additional Participating Persons:	Dennis Fogarty; Federal Aviation Administration; Long Beach, CA Mark Platt; Textron Lycoming; Williamsport, PA	
Original Publish Date:	December 28, 2004	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=58690	

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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.

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