



# Aviation Investigation Final Report

<b>Location:</b>	PEARL HARBOR, Hawaii	<b>Accident Number:</b>	LAX00FA159
<b>Date &amp; Time:</b>	April 17, 2000, 11:06 Local	<b>Registration:</b>	N56336
<b>Aircraft:</b>	Convair BT-13A	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Other work use		

## Analysis

The pilot was flying a replica Japanese Val during the filming of 'Pearl Harbor' on Ford Island, Hawaii. The movie shot called for a low pass of three Val's over a movie set with 65-foot-tall palm trees. The number 2 and 3 wingmen were to stack up (above) on the flight leader number 1. At the completion of the pass, the number 3 wingman's left wing contacted a palm tree, severing about 18 feet of left wing. The airplane rolled twice and descended into the ground. The pilot was wearing a 5-point restraint system and survived with serious injuries. Video and film were viewed to determine whether or not smoke created by smoke generators for the movie shot were a factor affecting the pilot's view of the palm trees. The pilot reported the smoke was not an issue. The last thing he recalled was turbulence from the flight leader.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to anticipate turbulence from the formation lead airplane. Contributing to the accident was the pilot's failure to maintain control of the airplane.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: MANEUVERING

### Findings

1. OBJECT - TREE(S)

2. FORMATION FLYING - PILOT IN COMMAND
3. (C) LOW PASS - MISJUDGED - PILOT IN COMMAND
4. (F) WAKE TURBULENCE - ENCOUNTERED - PILOT IN COMMAND

## Factual Information

### HISTORY OF FLIGHT

On April 17, 2000, about 1106 hours Hawaiian standard time, an experimental modified Convair BT-13A, N56336, was destroyed after colliding with a movie set palm tree during filming on Ford Island, Pearl Harbor, Hawaii. The commercial rated pilot received serious injuries. American Airpower Heritage Museum, Midland, Texas, operated the flight under the provisions of 14 CFR Part 91. Visual meteorological conditions prevailed and a company flight plan was filed.

The airplane was modified to resemble a Japanese "Val" dive-bomber. At the time of the accident, the airplane was the number 3 wingman of a group of three "Val's" flying in a modified "V" formation making a low pass over a movie set.

The pilot's preflight briefing called for wingman number 2 and 3 to stack up (above) on flight leader number 1.

At the termination of the low pass over the movie set, the number 3 airplane's left wing collided with a palm tree, estimated to be 65 feet tall, severing the outboard 18 feet of the wing. Impact marks and organic material transfer similar to the palm tree were found about 2.5 feet inboard of the wing tip.

### PERSONNEL INFORMATION

According to accident report completed by the operator, the commercial rated pilot had accumulated a total flight time of 6,100 hours with 1,000 plus hours in the accident make and model. His last second-class flight physical was conducted on February 22, 2000, with the provision that he must wear corrective lenses. The pilot held a Confederate Air Force formation pilot rating for wingman.

The Safety Board investigator interviewed the pilot in the hospital. He stated that the last thing that he recalled was experiencing turbulence from the flight leader. He further stated that the smoke generators were not an issue and he did not fly into or through smoke.

### AIRCRAFT INFORMATION

About 1969, the need arose for Japanese Zero, Kate, and Val airplanes for the movie Tora! Tora! Tora! The replica airplanes were created/modified from existing production airplanes at Long Beach, California, and were still available for this movie "Pearl Harbor."

## WRECKAGE AND IMPACT INFORMATION

The wreckage was examined on site. According to video viewing, after the collision with the palm tree and loss of 18 feet of right wing, the airplane rolled, about twice, and descended into the Ford Island Airport landing area. The fuselage was located about 445 feet from the palm tree on about a 040-degree magnetic heading. The engine was 236 feet beyond the fuselage. The left wing was located about midway between the palm tree and the engine, and 200 feet southeast of the 040-degree wreckage path.

## SURVIVAL ASPECTS

The pilot wore a 5-point military type restraint system and helmet.

## ADDITIONAL INFORMATION

The Safety Board investigator viewed film and videotape in an attempt to determine whether or not the smoke being generated for the particular live recreation of the December 7, 1941, attack on Pearl Harbor could have obscured the pilot's view of the movie set palm trees. It was subsequently determined that the smoke was not a factor.

The Safety Board released the wreckage on April 19, 2000, to the owner's representative.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	66, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	February 22, 2000
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	6100 hours (Total, all aircraft), 1000 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Convair	<b>Registration:</b>	N56336
<b>Model/Series:</b>	BT-13A BT-13A	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	6656
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	February 8, 2000 Annual	<b>Certified Max Gross Wt.:</b>	4700 lbs
<b>Time Since Last Inspection:</b>	24 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	5754 Hrs	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	R1340-AN1
<b>Registered Owner:</b>	AMERICAN AIRPOWER HERITAGE	<b>Rated Power:</b>	600 Horsepower
<b>Operator:</b>	BIG SHIP PRODUCTIONS, INC.	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	HNL ,10 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	10:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 3300 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	60°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	24°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	FORD ISLAND , HI (NPS)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	
<b>Departure Time:</b>	10:40 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	21.359445,-157.939392(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Petterson, George
<b>Additional Participating Persons:</b>	GERALD E PARROTT; HONOLULU , HI
<b>Original Publish Date:</b>	May 9, 2001
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=51197">https://data.ntsb.gov/Docket?ProjectID=51197</a>

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