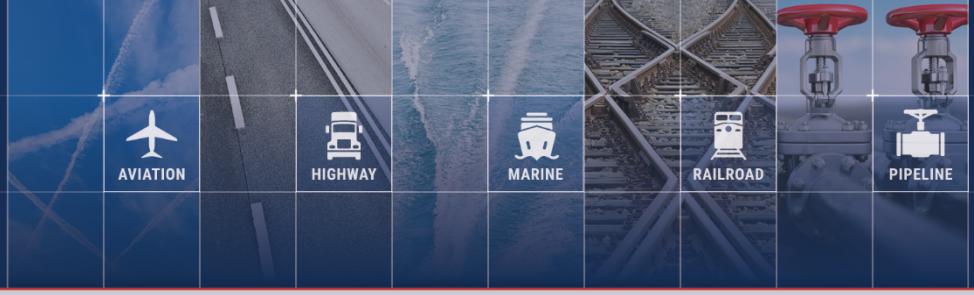


Aviation Investigation Final Report

Location:	WESTMINISTER, California	**Accident Number:**	LAX00LA315
Date & Time:	August 27, 2000, 18:50 Local	**Registration:**	N9PJ
Aircraft:	Pitts S1S	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplanes collided in-flight as the Pitts maneuvered from behind to in front of the Cessna. The pilots stated they were flying each other's airplane. The pilots established radio and visual contact with each other. The Pitts assumed a trail position behind the Cessna. The Pitts varied its distance and position relative to the Cessna. Cruise altitude was about 1,000 feet. The Cessna turned left and began a gradual climb to 1,500 feet. About 1,400 feet, the Pitts pilot advised the Cessna pilot to hold still and the Cessna pilot acknowledged. The Cessna pilot leveled off and held his course. He knew from their years of flying together that the Pitts pilot would come below him. As the Pitts maneuvered from behind to in front of the Cessna, the Cessna's propeller severed the top half of the Pitts' vertical stabilizer and rudder. The Cessna's damaged propeller set up a vibration. The Pitts pilot maintained control of his airplane. The pilots discussed their options and elected to divert to Fullerton. They advised the tower of their situation and asked for emergency equipment to be on hand. The Cessna pilot landed first, and the Pitts pilot evaluated the amount of control available. After the emergency equipment arrived, the Pitts landed uneventfully.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot of the Pitts misjudged the clearance while maneuvering under the Cessna.

Findings

Occurrence #1: MIDAIR COLLISION
Phase of Operation: MANEUVERING

Findings
1. (C) CLEARANCE - MISJUDGED - PILOT IN COMMAND

Factual Information

On August 27, 2000, about 1850 hours Pacific daylight time, a Pitts S1S, N9PJ, sustained substantial damage when it collided in-flight with a Cessna 172RG, N6225R, near Westminster, California. Both airplanes were maneuvering during a formation flight when the collision occurred. Both airplanes made successful landings at the Fullerton, California, airport following the collision. Their respective owners were operating the airplanes under 14 CFR Part 91. The Pitts S1S sustained substantial damage to the empennage, while the Cessna 172RG incurred minor propeller damage. The commercial pilots, the sole occupants of their respective airplanes, were not injured. The personal flights departed Dougherty Field, Long Beach, California, en route to the Cable Airport, Upland, California, about 1840. Visual meteorological conditions prevailed and no flight plans had been filed.

The pilots stated they were flying each other's airplane. The Pitts departed first, and the Cessna followed. Once over the coastline and clear of the Long Beach airport traffic area, they established radio and visual contact with each other. The Pitts circled and assumed a trail position behind the Cessna. The Pitts pilot said he varied his distance and position relative to the Cessna. Cruise altitude was about 1,000 feet. As they approached the Huntington Beach Pier, the Cessna turned left toward Disneyland and began a gradual climb to 1,500 feet.

About 1,400 feet, the Pitts pilot advised the Cessna pilot to hold still and the Cessna pilot acknowledged. The Cessna pilot leveled off and held his course. He knew from their years of flying together that the Pitts pilot would come below him. As the Pitts maneuvered from behind to in front of the Cessna, the Cessna's propeller severed the top half of the Pitts' vertical stabilizer and rudder. The Cessna's damaged propeller set up a vibration. The Pitts pilot maintained control of his airplane.

The pilots discussed their options and elected to divert to Fullerton. They advised the tower of their situation and asked for emergency equipment to be on hand. The Cessna landed first, and the Pitts pilot evaluated the amount of control available. After the emergency equipment arrived, the Pitts landed uneventfully.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	40,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	Glider; Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Glider; Helicopter	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	June 8, 2000
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	5800 hours (Total, all aircraft), 39 hours (Total, this make and model), 5690 hours (Pilot In Command, all aircraft), 157 hours (Last 90 days, all aircraft), 44 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Pitts	**Registration:**	N9PJ
Model/Series:	S1S S1S	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	1-0037
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	January 1, 2000 AAIP	**Certified Max Gross Wt.:**	1150 lbs
Time Since Last Inspection:	28 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	904 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Not installed	**Engine Model/Series:**	AEIO-360-B4A
Registered Owner:	MARTIN W. KUSCH	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	FUL ,96 ft msl	**Distance from Accident Site:**	5 Nautical Miles
Observation Time:	18:53 Local	**Direction from Accident Site:**	305°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	70°C / 63°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LONG BEACH , CA (LGB)	**Type of Flight Plan Filed:**	None
Destination:	UPLAND , CA (CCB)	**Type of Clearance:**	None
Departure Time:	18:40 Local	**Type of Airspace:**	Class G

Airport Information

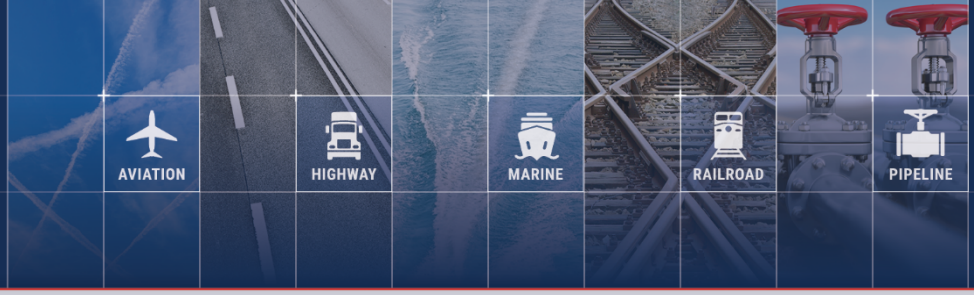
Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Plagens, H.
Additional Participating Persons:	RICK STOCKTON; LONG BEACH , CA
Original Publish Date:	November 1, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=50130



Aviation Investigation Final Report

Location:	WESTMINISTER, California	**Accident Number:**	LAX00LA315
Date & Time:	August 27, 2000, 18:50 Local	**Registration:**	N6225R
Aircraft:	Cessna 172RG	**Aircraft Damage:**	Minor
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplanes collided in-flight as the Pitts maneuvered from behind to in front of the Cessna. The pilots stated they were flying each other's airplane. The pilots established radio and visual contact with each other. The Pitts assumed a trail position behind the Cessna. The Pitts varied its distance and position relative to the Cessna. Cruise altitude was about 1,000 feet. The Cessna turned left and began a gradual climb to 1,500 feet. About 1,400 feet, the Pitts pilot advised the Cessna pilot to hold still and the Cessna pilot acknowledged. The Cessna pilot leveled off and held his course. He knew from their years of flying together that the Pitts pilot would come below him. As the Pitts maneuvered from behind to in front of the Cessna, the Cessna's propeller severed the top half of the Pitts' vertical stabilizer and rudder. The Cessna's damaged propeller set up a vibration. The Pitts pilot maintained control of his airplane. The pilots discussed their options and elected to divert to Fullerton. They advised the tower of their situation and asked for emergency equipment to be on hand. The Cessna pilot landed first, and the Pitts pilot evaluated the amount of control available. After the emergency equipment arrived, the Pitts landed uneventfully.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot of the Pitts misjudged the clearance while maneuvering under the Cessna.

Findings

Occurrence #1: MIDAIR COLLISION
Phase of Operation: MANEUVERING

Findings
1. (C) CLEARANCE - MISJUDGED - PILOT OF OTHER AIRCRAFT

Factual Information

On August 27, 2000, about 1850 hours Pacific daylight time, a Pitts S1S, N9PJ, sustained substantial damage when it collided in-flight with a Cessna 172RG, N6225R, near Westminster, California. Both airplanes were maneuvering during a formation flight when the collision occurred. Both airplanes made successful landings at the Fullerton, California, airport following the collision. Their respective owners were operating the airplanes under 14 CFR Part 91. The Pitts S1S sustained substantial damage to the empennage, while the Cessna 172RG incurred minor propeller damage. The commercial pilots, the sole occupants of their respective airplanes, were not injured. The personal flights departed Dougherty Field, Long Beach, California, en route to the Cable Airport, Upland, California, about 1840. Visual meteorological conditions prevailed and no flight plans had been filed.

The pilots stated they were flying each other's airplane. The Pitts departed first, and the Cessna followed. Once over the coastline and clear of the Long Beach airport traffic area, they established radio and visual contact with each other. The Pitts circled and assumed a trail position behind the Cessna. The Pitts pilot said he varied his distance and position relative to the Cessna. Cruise altitude was about 1,000 feet. As they approached the Huntington Beach Pier, the Cessna turned left toward Disneyland and began a gradual climb to 1,500 feet.

About 1,400 feet, the Pitts pilot advised the Cessna pilot to hold still and the Cessna pilot acknowledged. The Cessna pilot leveled off and held his course. He knew from their years of flying together that the Pitts pilot would come below him. As the Pitts maneuvered from behind to in front of the Cessna, the Cessna's propeller severed the top half of the Pitts' vertical stabilizer and rudder. The Cessna's damaged propeller set up a vibration. The Pitts pilot maintained control of his airplane.

The pilots discussed their options and elected to divert to Fullerton. They advised the tower of their situation and asked for emergency equipment to be on hand. The Cessna landed first, and the Pitts pilot evaluated the amount of control available. After the emergency equipment arrived, the Pitts landed uneventfully.

Pilot Information

Certificate:	Commercial	**Age:**	33,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	October 12, 1999
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	1919 hours (Total, all aircraft), 132 hours (Total, this make and model), 1834 hours (Pilot In Command, all aircraft), 27 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N6225R
Model/Series:	172RG 172RG	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	172RG0122
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	October 1, 1999 Annual	**Certified Max Gross Wt.:**	2650 lbs
Time Since Last Inspection:	85 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3201 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-360-F16A
Registered Owner:	MICHAEL F. HARTMAN	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	FUL ,96 ft msl	**Distance from Accident Site:**	5 Nautical Miles
Observation Time:	18:53 Local	**Direction from Accident Site:**	305°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	70°C / 63°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LONG BEACH , CA (LGB)	**Type of Flight Plan Filed:**	None
Destination:	UPLAND , CA (CCB)	**Type of Clearance:**	None
Departure Time:	18:40 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Minor
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	Plagens, H.
Additional Participating Persons:	RICK STOCKTON; LONG BEACH , CA
Original Publish Date:	November 1, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=50130