



# Aviation Investigation Final Report

<b>Location:</b>	Camarillo, California	<b>Accident Number:</b>	LAX01LA288
<b>Date &amp; Time:</b>	August 24, 2001, 18:20 Local	<b>Registration:</b>	N48742
<b>Aircraft:</b>	Ryan ST3KR	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported he was giving rides in the antique aircraft to thank museum volunteers of the Confederate Air Force squadron. Before takeoff, the aircraft was fueled to capacity, which he reported was sufficient for 2 hours endurance. About 20 minutes after takeoff, while in normal cruise flight and without warning, the engine lost power. During the ensuing forced landing in an open field, the landing gear struck a culvert and a wing was damaged. Post-accident inspection revealed that a clevis on the throttle linkage separated from the rod at the cockpit control quadrant. The operator, a (civilian) military aircraft museum, believed that the throttle linkage had been field fabricated, or refurbished and installed during restoration of the World War II-era airplane, 358 flight hours prior. A rivet, intended to lock the clevis to the shaft, was never installed during the fabrication/reassembly of the linkage, and the absence of the rivet was not detected during subsequent annual inspections.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The improper fabrication/reassembly and inspection of the engine throttle control linkage during aircraft restoration by the operator, and the failure of the operator's inspection personnel to detect the error during subsequent annual inspections.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE - NORMAL

Findings

1. THROTTLE/POWER LEVER, LINKAGE - DISCONNECTED
2. (C) THROTTLE/POWER CONTROL - IMPROPER - OTHER MAINTENANCE PERSONNEL
3. (C) MAINTENANCE, INSPECTION - INADEQUATE - COMPANY MAINTENANCE PERSONNEL
4. (C) MAINTENANCE, ANNUAL INSPECTION - INADEQUATE - COMPANY MAINTENANCE PERSONNEL

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

5. TERRAIN CONDITION - OPEN FIELD

## Factual Information

On August 24, 2001, at 1820 hours Pacific daylight time, a Ryan ST3KR, N48742, was substantially damaged during an off-airport emergency landing near Camarillo, California, following loss of engine power in cruise flight. The airline transport certificated pilot and one passenger were not injured. The personal flight was operated by the American Airpower Heritage Flying Museum under 14 CFR Part 91. The local area flight departed from Camarillo at 1800. Visual meteorological conditions prevailed and no flight plan was filed.

The pilot reported he was giving rides in the antique aircraft to thank museum volunteers of the Confederate Air Force squadron at Camarillo. Before takeoff, the aircraft was fueled to capacity, which he reported was sufficient for 2 hours endurance. About 20 minutes after takeoff, while in normal cruise flight and without warning, the engine lost power. During the ensuing forced landing in an open field, the landing gear struck a culvert and a wing was damaged.

Post-flight inspection revealed that a clevis on the throttle linkage rod separated from the rod at the cockpit control quadrant. A rivet, intended to lock the clevis to the rod shaft, was never installed during fabrication/assembly of the linkage and absence of the rivet had not been detected during subsequent annual inspections. Museum personnel told the Safety Board investigator that it was their belief that the throttle linkage had, most likely, been field fabricated or disassembled, cleaned and reassembled, and then reinstalled in the airplane during the last restoration of the World War II-era aircraft, 358 flight hours prior.

## Pilot Information

<b>Certificate:</b>	Airline transport; Flight engineer; Flight instructor	<b>Age:</b>	66, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 7, 2001
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	18520 hours (Total, all aircraft), 175 hours (Total, this make and model), 11099 hours (Pilot In Command, all aircraft), 235 hours (Last 90 days, all aircraft), 82 hours (Last 30 days, all aircraft), 9 hours (Last 24 hours, all aircraft)		

## Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	59, 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>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	June 1, 2001
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	April 5, 2001
<b>Flight Time:</b>	24700 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Ryan	<b>Registration:</b>	N48742
<b>Model/Series:</b>	ST3KR	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1298
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 1, 2001 Annual	<b>Certified Max Gross Wt.:</b>	1850 lbs
<b>Time Since Last Inspection:</b>	36 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2512 Hrs at time of accident	<b>Engine Manufacturer:</b>	Kinner
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	R-56
<b>Registered Owner:</b>	American Airpower Heritage Flying Museum	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	CMA, 75 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	17:55 Local	<b>Direction from Accident Site:</b>	215°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.8 inches Hg	<b>Temperature/Dew Point:</b>	21°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Camarillo, CA (CMA )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	18:00 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	34.230316,-119.07006(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Parker, Richard
<b>Additional Participating Persons:</b>	FRANK MOTTER; FAA Flt Stnds Dist. Office; Van Nuys, CA
<b>Original Publish Date:</b>	May 28, 2002
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=53115">https://data.ntsb.gov/Docket?ProjectID=53115</a>

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](#).