



# National Transportation Safety Board

## Aviation Accident Final Report

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Location:	HOT SPRINGS, AR	Accident Number:	FTW92FA218
Date & Time:	08/25/1992, 0515 CDT	Registration:	N342AE
Aircraft:	FAIRCHILD SA 227-AC	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General Aviation -		

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### Analysis

THE MAINTENANCE TEST FLIGHT WAS BEING FLOWN FOLLOWING COMPLETION OF AIRWORTHINESS DIRECTIVE 87-02-02 REQUIRING THE MANDATORY REPLACEMENT OF ALL PRIMARY FLIGHT CONTROL CABLES. FOLLOWING LIFT-OFF, WITNESSES OBSERVED THE AIRPLANE START A RAPID ROLL TO THE RIGHT UNTIL INITIAL IMPACT WAS MADE WITH THE GROUND BY THE RIGHT WING TIP. EXAMINATION OF THE WRECKAGE REVEALED THE A HALF TURN IN THE ROUTING OF THE REPLACED FLIGHT CONTROL CABLE WAS INADVERTENTLY OMITTED ON BOTH CONTROL COLUMNS WHICH WOULD RESULT IN THE AILERONS OPERATING IN REVERSE OF THE COMMANDED INPUT. THE PASSENGER WAS THE QUALITY CONTROL INSPECTOR WHO HAD INSPECTED AND SIGNED OFF THE MAINTENANCE PERFORMED. ACCORDING TO OTHER COMPANY PERSONNEL, HE HAD BRIEFED THE CREW PRIOR TO THE FLIGHT ON THE PURPOSE OF THE TEST FLIGHT AND THE EXTENT OF THE MAINTENANCE THAT THE AIRPLANE HAD UNDERGONE.

### Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE MAINTENANCE AND INSPECTION BY THE OPERATOR'S MAINTENANCE PERSONNEL, AND THE FAILURE OF THE PILOT-IN-COMMAND TO ASSURE PROPER TRAVEL DIRECTION OF THE AIRPLANE'S PRIMARY FLIGHT CONTROLS AFTER BEING MADE AWARE OF THE NATURE OF THE MAINTENANCE PERFORMED.

## Findings

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Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. (C) FLT CONTROL SYST,AILERON CONTROL - INCORRECT
2. (C) MAINTENANCE,INSPECTION - INADEQUATE - COMPANY MAINTENANCE PERSONNEL
3. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAKEOFF - INITIAL CLIMB

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	25, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	08/12/1992
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2828 hours (Total, all aircraft), 667 hours (Total, this make and model), 1548 hours (Pilot In Command, all aircraft), 235 hours (Last 90 days, all aircraft), 85 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	FAIRCHILD	<b>Registration:</b>	N342AE
<b>Model/Series:</b>	SA 227-AC SA 227-AC	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	AC-545
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	21
<b>Date/Type of Last Inspection:</b>	08/14/1992, 100 Hour	<b>Certified Max Gross Wt.:</b>	14500 lbs
<b>Time Since Last Inspection:</b>	48 Hours	<b>Engines:</b>	2 Turbo Prop
<b>Airframe Total Time:</b>	19889 Hours	<b>Engine Manufacturer:</b>	GARRETT
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	TPE-331-611
<b>Registered Owner:</b>	MCC FINANCIAL CORP	<b>Rated Power:</b>	1100 hp
<b>Operator:</b>	LONE STAR AIRLINES	<b>Operating Certificate(s) Held:</b>	Commuter Air Carrier (135)

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dawn
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	23°C
Precipitation and Obscuration:			
Departure Point:	(HOT)	Type of Flight Plan Filed:	None
Destination:	(HOT)	Type of Clearance:	None
Departure Time:	0515 CST	Type of Airspace:	Class G

## Airport Information

Airport:	HOT SPRINGS MEMORIAL (HOT)	Runway Surface Type:	Asphalt
Airport Elevation:	540 ft	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	4099 ft / 150 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	3 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	3 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	HECTOR R CASANOVA	Report Date:	09/17/1993
Additional Participating Persons:	EDWIN E MILLISER; LITTLE ROCK, AR WERNER KOCH; FORT WORTH, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident docket serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.ntsb.gov/pubdms/">http://dms.ntsb.gov/pubdms/</a> .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).