



# Aviation Investigation Final Report

<b>Location:</b>	STERLING, Virginia	<b>Accident Number:</b>	BF088FA014
<b>Date &amp; Time:</b>	January 24, 1988, 16:15 Local	<b>Registration:</b>	N5350A
<b>Aircraft:</b>	CESSNA T210N	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

ABT 2.7 HRS AFTER TAKEOFF, THE STUDENT PLT & INSTRUCTOR (CFI) WERE PRACTICING INSTRUMENT APCHS WHEN THE ENG LOST PWR. THE CFI TOOK CONTROL OF THE ACFT & MADE A FORCED LNDG, BUT THE ACFT WAS DAMAGED ON ROUGH TERRAIN. AN EXAM OF THE ACFT REVEALED THE RIGHT & LEFT TANKS HAD ABOUT 0.5 & 30 GAL OF FUEL, RESPECTIVELY. THE FUEL SELECTOR WAS FOUND IN THE RIGHT TANK POSITION. THE ACFT HAD BEEN FLOWN ABOUT 4.3 HRS SINCE IT WAS LAST REFUELED & THE RIGHT TANK HAD BEEN USED FOR ABOUT 3.5 HRS OF THAT TIME. ALSO, THE RGT TANK HAD BEEN USED FOR THE ENTIRE TIME OF THE ACDNT FLT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: APPROACH

#### Findings

1. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)
2. (C) FLUID,FUEL - STARVATION
3. (C) FUEL TANK SELECTOR POSITION - IMPROPER - DUAL STUDENT

Occurrence #2: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY

Findings

4. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND(CFI)

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: LANDING

Findings

5. (F) TERRAIN CONDITION - ROUGH/UNEVEN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	63,Female
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<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; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	September 8, 1987
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5338 hours (Total, all aircraft), 50 hours (Total, this make and model), 4871 hours (Pilot In Command, all aircraft), 48 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N5350A
<b>Model/Series:</b>	T210N T210N	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	21063383
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	July 7, 1987 Annual	<b>Certified Max Gross Wt.:</b>	4000 lbs
<b>Time Since Last Inspection:</b>	78 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1311 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	TSIO-520-R
<b>Registered Owner:</b>	JOEL HORN	<b>Rated Power:</b>	310 Horsepower
<b>Operator:</b>	ARMEL AVIATION	<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>	DUL ,313 ft msl	<b>Distance from Accident Site:</b>	3 Nautical Miles
<b>Observation Time:</b>	15:50 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	25000 ft AGL	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	190°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	6°C / -3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(IAD )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	13:30 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	DULLES INTL IAD	<b>Runway Surface Type:</b>	Concrete
<b>Airport Elevation:</b>	313 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	19L	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	11500 ft / 150 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<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>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Jones, Dennis
<b>Additional Participating Persons:</b>	RICHARD BELL; WASHINGTON , DC
<b>Original Publish Date:</b>	July 3, 1989
<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=11357">https://data.ntsb.gov/Docket?ProjectID=11357</a>

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