



# Aviation Investigation Final Report

<b>Location:</b>	FINLEY, North Dakota	<b>Accident Number:</b>	CHI97LA002
<b>Date &amp; Time:</b>	October 3, 1996, 08:15 Local	<b>Registration:</b>	N185ND
<b>Aircraft:</b>	Cessna 185	<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

The airplane was parked on shore near a dock. The flight instructor (CFI) reported that after starting the engine, the airplane began to move forward, and the wing strut and wing cleared the dock. After the wing cleared the dock, the instructor began to lower the water rudders, and the tail of the airplane began moving toward the dock. A right crosswind was present during the departure from the shore. The instructor reported that full left rudder with the water rudders partially extended was ineffective in stopping the horizontal stabilizer of the airplane from hitting the dock.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the flight instructor (CFI) to ensure that clearance from the dock was maintained, while starting to taxi. The crosswind was a related factor.

## Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: TAXI

### Findings

1. (F) WEATHER CONDITION - CROSSWIND
2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND(CFI)



## Factual Information

On October 3, 1996, at 0815 central daylight time (cdt), a Cessna 185, N185ND, sustained substantial damage when the airplane's horizontal stabilizer collided with a dock. The airplane was taxiing for takeoff, on Golden Lake, near Finley, North Dakota, when the accident occurred. The flight instructor and student pilot were uninjured in the accident. The 14 CFR Part 91 flight was operating in visual meteorological conditions, and no flight plan had been filed.

The flight instructor reported on NTSB form 6120.1/2 that the airplane was parked on the shore near the dock. Before departing the shore the instructor reported that she and the student discussed the departure, and believed that distance between the dock and the airplane did not appear to present a problem during departure.

The instructor reported that after starting the airplane's engine the airplane began to move forward, and the wing strut and wing cleared the dock. After clearing the dock with the wing the instructor reported that she began to lower the water rudders, and the tail of the airplane began moving towards the dock. The diagram included with the report shows that the aircraft was experiencing a right crosswind during the departure from shore. The instructor reported that full left rudder with the water rudders partially extended was ineffective in stopping the horizontal of the airplane from hitting the dock. The pilot did not report any airplane or engine malfunctions.

The airplane's horizontal stabilizer required replacement, following the accident.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	26,Female
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; 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 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	May 22, 1996
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2415 hours (Total, all aircraft), 16 hours (Total, this make and model), 2344 hours (Pilot In Command, all aircraft), 122 hours (Last 90 days, all aircraft), 45 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N185ND
<b>Model/Series:</b>	185 185	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	18504369
<b>Landing Gear Type:</b>	Float	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	September 4, 1996 Annual	<b>Certified Max Gross Wt.:</b>	3350 lbs
<b>Time Since Last Inspection:</b>	41 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2124 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-D
<b>Registered Owner:</b>	UNIVERSITY OF NORTH DAKOTA	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>		<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>	GFK ,844 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	08:47 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 15000 ft AGL	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	Broken / 25000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	170°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	-1°C / -4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	GRAND FORKS , ND (GFK )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	07:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	Water
<b>Airport Elevation:</b>	1050 ft msl	<b>Runway Surface Condition:</b>	Wet
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## 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>	47.509254,-97.83023(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Boldenow, David
<b>Additional Participating Persons:</b>	JOHN VOLD; FARGO , ND
<b>Original Publish Date:</b>	December 23, 1996
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=10471">https://data.nts.gov/Docket?ProjectID=10471</a>

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