



# Aviation Investigation Final Report

<b>Location:</b>	KETCHIKAN, Alaska	<b>Accident Number:</b>	ANC95LA051
<b>Date &amp; Time:</b>	April 30, 1995, 08:15 Local	<b>Registration:</b>	N111EZ
<b>Aircraft:</b>	CESSNA 185	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

## Analysis

THE PILOT STATED SHE WAS ATTEMPTING TO LAND IN THE HARBOR BETWEEN TWO GUST AREAS INDICATED BY THE DISRUPTION ON THE WATER'S SURFACE. AS THE AIRPLANE TOUCHED DOWN ON THE WATER SHE REDUCED THE POWER TO IDLE. THE PILOT STATED SHE WAS SURE THE AIRPLANE ROLLED TO THE RIGHT AND DRAGGED ITS RIGHT WINGTIP AND NOSED OVER. A WITNESS STANDING ON THE ADJACENT DOCK SAW THE LEFT FLOAT AND LEFT WING STRIKE THE WATER FIRST. THE PILOT STATED THAT HER INSTRUCTOR TAUGHT HER TO LAND WITH A FLAT NOSE PITCH ATTITUDE SO THE FLOATS WOULD NOT GET 'SUCKED IN.' THE AIRPLANE MANUAL STATES THAT THE AIRPLANE SHOULD BE LANDED SLIGHTLY TAIL LOW.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S INADVERTENT WATER LOOP/SWERVE DUE TO THE USE OF IMPROPER LANDING PROCEDURES.

### Findings

Occurrence #1: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID  
Phase of Operation: LANDING

#### Findings

1. WEATHER CONDITION - GUSTS

2. (C) WATER LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND
3. (C) PROCEDURE INADEQUATE - PILOT IN COMMAND

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Occurrence #2: NOSE OVER  
Phase of Operation: LANDING

## Factual Information

On April 30, 1995, at 0815 Alaska daylight time, a float equipped Cessna 185 airplane, N111EZ, registered to and operated by Island Wings Air Service of Ketchikan, Alaska, nosed over during landing in the harbor at Ketchikan. The positioning flight, operating under 14 CFR Part 91, departed Peninsula Point, Alaska, and the destination was the Ketchikan Harbor. The commercial certificated pilot, the sole occupant, was not injured. No flight plan was filed and visual meteorological conditions prevailed. The airplane received substantial damage.

According to the pilot, she was landing on the harbor using full flaps. The pilot described the wind in the channel as southeasterly at 10 knots and a "little gusty." She stated she could see two gust areas on the water near the shoreline and intended to land between those areas. The pilot stated that at 70 knots she "flattened" the landing attitude of the airplane. As the floats touched down on the water she reduced the power to idle, the airplane rolled sharply to the right and dragged the right wingtip in the water. The airplane then nosed over.

The pilot stated that she saw the gust areas by viewing the disruption on the water's surface but did not feel that the gusts were significant. She stated that when the wind blows from an easterly direction in the channel, the harbor winds will be from the southeast. Then the wind blows around Mountain Point and there are gusts along the town side of the harbor.

According to a witness, who was standing on the dock immediately adjacent the area of intended landing, he stated the following: "I saw an airplane landing. The left float touched down first, it cut hard to the left. The left wing hit the water, it bounced up then the right wing hit the water. The plane bounced back to the left wing and flipped over on its top."

Examination of the polaroid photographs submitted by the operator shows crushing and bending damage to the left wingtip. The right wingtip shows no damage.

During a telephone interview with the pilot, she stated that she was sure that the airplane rolled to the right and that the right wingtip touched the water first. She also stated that she landed with a flat nose pitch attitude because the instructor who taught her stated that he did not want the nose of the floats to get "sucked in."

According to the Cessna owner's manual supplement for the 185 floatplane, it states that during landing the airplane should touch down slightly tail low. After touchdown the control wheel should be held full aft as the floatplane decelerates to taxi speed.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	34,Female
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	May 5, 1994
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1100 hours (Total, all aircraft), 300 hours (Total, this make and model), 995 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N111EZ
<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>	1850753
<b>Landing Gear Type:</b>	Float	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	September 2, 1994 Annual	<b>Certified Max Gross Wt.:</b>	3300 lbs
<b>Time Since Last Inspection:</b>	45 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2015 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-D
<b>Registered Owner:</b>	MICHELLE MASDEN	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>	ISLAND WINGS AIR SERVICE	<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	IW7A

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 3000 ft AGL	<b>Visibility</b>	35 miles
<b>Lowest Ceiling:</b>	Unknown	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	120°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	16°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	PENINSULA POINT, AK	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	18:10 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 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>	1 None	<b>Latitude, Longitude:</b>	55.610706,-131.58049(est)

## Administrative Information

**Investigator In Charge (IIC):** Kobelnyk, George

**Additional Participating Persons:** JIM VUILLE;

**Original Publish Date:** November 6, 1995

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=2646>

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