



Aviation Investigation Final Report

Location:	KEY WEST, Florida	Accident Number:	ATL01LA032
Date & Time:	January 31, 2001, 10:40 Local	Registration:	N208KW
Aircraft:	Cessna 208	Aircraft Damage:	Substantial
Defining Event:		Injuries:	10 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Sightseeing		

Analysis

The pilot planned and performed a water landing to avoid any past wake swells created by the ferry boat. Approximately 1/2 to 3/4 through his landing slide, with the plane slowed to approximate 30 - 35 knots, a large swell appeared before him. Despite efforts to avoid the wake created by the boat, the airplane encountered a swell that launched the airplane 10-15 feet into the air. The airplane subsequently collided with the water and the rear float struts failed at the attachment points. No mechanical problems with the airplane were reported by the pilot.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The airplanes' inadvertent collision with a swell during a water landing near a ferry boat that resulted the overload failure of the rear float/strut assembly.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) TERRAIN CONDITION - LARGE WAVE/SWELL
2. (C) TOUCHDOWN - INADVERTENT - PILOT IN COMMAND

Factual Information

On January 31, 2001, at 1040 eastern standard time, a Cessna 208, N208KW, collided with water during landing off-shore in the Dry Tortugas National Park near Fort Jefferson, 70 miles west of Key West, Florida. The airplane was operated by Seaplanes of Key West, and flown by the Airline Transport Pilot (ATP) under the provisions of Title 14 CFR Part 135, and visual flight rules. Visual meteorological conditions prevailed and a visual flight rules flight plan was filed for the local sightseeing flight. The pilot and nine passengers were not injured and the airplane sustained substantial damage. The flight originated from Key West, Florida, at 1000.

According to the pilot, while making a normal approach, including a flyby to evaluate landing conditions, he observed that one of the ferryboats was arriving in the south channel. He planned and performed a water landing to avoid any past wake swells created by the ferry boat in the landing area. Approximately 1/2 to 3/4 through the landing slide, with the airplane slowed to approximate 30 - 35 knots, a large swell appeared and launched the airplane 10-15 feet above the water. This swell was completely separated from the boat wake that had been observed earlier. The pilot further stated that, at this point, he was "powerless" to do anything but wait for the airplane to settle. After the airplane settled on the water, the pilot taxied to shallow water where assistance was received from park service in deplaning the airplane.

The examination of the airplane disclosed that the rear float/strut attach point had failed and the strut assembly had penetrated the airframe skin. No mechanical problems with the airplane were reported by the pilot. According to the pilot, the swell that launched the airplane during the landing was not seen until it was too late for him to avoid the collision.

Pilot Information

Certificate:	Airline transport	Age:	45, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	March 16, 2000
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	December 5, 2000
Flight Time:	15000 hours (Total, all aircraft), 2620 hours (Total, this make and model), 14700 hours (Pilot In Command, all aircraft), 140 hours (Last 90 days, all aircraft), 65 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N208KW
Model/Series:	208	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	20800292
Landing Gear Type:	Amphibian	Seats:	10
Date/Type of Last Inspection:	January 30, 2001 Continuous airworthiness	Certified Max Gross Wt.:	8360 lbs
Time Since Last Inspection:	0.5 Hrs	Engines:	1 Turbo prop
Airframe Total Time:	1787 Hrs as of last inspection	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	PT8-114A
Registered Owner:	SEAPLANES OF KEY WEST	Rated Power:	675 Lbs thrust
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	SZ8A

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MIA,8 ft msl	Distance from Accident Site:	
Observation Time:	09:56 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	23°C / 19°C
Precipitation and Obscuration:			
Departure Point:	KEY WEST, AK (EYW)	Type of Flight Plan Filed:	None
Destination:	(EYW)	Type of Clearance:	None
Departure Time:	10:00 Local	Type of Airspace:	Class C

Airport Information

Airport:	Key West International KEYW	Runway Surface Type:	Water
Airport Elevation:		Runway Surface Condition:	Water-calm
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	9 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	10 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Wilson, Butch
Additional Participating Persons:	Ron Bird; MIAMI FSDO; MIAMI, FL
Original Publish Date:	July 30, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=51461

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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](#).