



# Aviation Investigation Final Report

<b>Location:</b>	Summerland Key, Florida	<b>Accident Number:</b>	ERA19TA067
<b>Date &amp; Time:</b>	November 23, 2018, 08:20 Local	<b>Registration:</b>	N41VK
<b>Aircraft:</b>	Beech A36	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Landing gear collapse	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that during taxi after landing on a 2,550-ft-long asphalt runway, he intended to retract the flaps, but accidentally retracted the landing gear, resulting in the nose gear and right main landing gear collapsing on the runway. The pilot added that there were no preimpact mechanical malfunctions with the airplane.

Examination of the accident site revealed runway scrape marks and propeller strikes originating about 1,000 ft beyond the approach end of the runway. The marks extended about 500 ft and terminated at the wreckage, off the left side of the runway. The left main landing gear remained extended and the right wing and lower fuselage sustained damage. The length of scrape marks and extent of damage were consistent with a landing gear collapse during a high-speed landing rollout, rather than a low-speed taxi after landing. The airplane was equipped with a squat switch on both main landing gear to prevent inadvertent landing gear retraction on the ground; however, the switch required weight-on-wheels to work effectively. It's likely that the pilot bounced the landing and attempted to retract the flaps in an effort to settle the airplane on the runway for better wheel braking; however, without weight on the right main landing gear, the gear retracted when the pilot inadvertently moved the landing gear lever instead of the flap lever.

## Probable Cause and Findings

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

The pilot's inadvertent retraction of the landing gear during landing rollout, resulting in a landing gear collapse.

## Findings

<b>Personnel issues</b>	Incorrect action selection - Pilot
<b>Aircraft</b>	(general) - Incorrect use/operation

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Landing gear collapse (Defining event)
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On November 23, 2018, about 0820 eastern standard time, a Beech A36, N41VK, was substantially damaged when it was involved in an accident in Summerland Key, Florida. The private pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that during taxi after landing, he intended to retract the flaps, but accidentally retracted the landing gear, resulting in the nose gear and right main landing gear collapsing on the runway. The pilot also reported that there were no preimpact mechanical malfunctions with the airplane.

Examination of the accident site by a Federal Aviation Administration inspector revealed runway scrape marks and propeller strikes originating about 1,000 ft beyond the approach end of runway 12, a 2,550-ft-long asphalt runway. The marks extended about 500 ft and terminated at the wreckage, off the left side of the runway. The inspector added that the left main landing gear remained extended and he noted damage to the right wing and lower fuselage.

The airplane was equipped with a squat switch on both main landing gear to prevent inadvertent landing gear retraction on the ground; however, the switch required weight-on-wheels to work effectively.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	65,Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<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 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	April 19, 2018
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1891 hours (Total, all aircraft), 999999 hours (Total, this make and model), 1851 hours (Pilot In Command, all aircraft), 41 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Beech	<b>Registration:</b>	N41VK
<b>Model/Series:</b>	A36 UNDESIGNAT	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1981	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	E-1885
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 7, 2018 Annual	<b>Certified Max Gross Wt.:</b>	3651 lbs
<b>Time Since Last Inspection:</b>	70 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	5525 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	C126 installed, not activated	<b>Engine Model/Series:</b>	IO-550
<b>Registered Owner:</b>		<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	NQX, 5 ft msl	<b>Distance from Accident Site:</b>	14 Nautical Miles
<b>Observation Time:</b>	07:53 Local	<b>Direction from Accident Site:</b>	250°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	40°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.02 inches Hg	<b>Temperature/Dew Point:</b>	24°C / 21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Pompano Beach, FL (PMP)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Summerland Key, FL (FD51)	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	07:15 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Summerland Key Cove Airport FD51	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	4 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	12	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2550 ft / 20 ft	<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>	25.795278,-80.29(est)

## Administrative Information

Investigator In Charge (IIC):	Gretz, Robert		
Additional Participating Persons:	Anthony Saavedra; FAA/FSDO; Miramar, FL		
Original Publish Date:	March 16, 2022	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=98784">https://data.nts.gov/Docket?ProjectID=98784</a>		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).