



# Aviation Investigation Final Report

<b>Location:</b>	Stratford, Connecticut	<b>Accident Number:</b>	ERA23LA216
<b>Date &amp; Time:</b>	April 27, 2023, 09:30 Local	<b>Registration:</b>	C-GPEX
<b>Aircraft:</b>	GILBERT R. RINGER GP4	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Sys/Comp malf/fail (non-power)	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot/owner was landing the experimental, amateur-built airplane at the conclusion of a night cross-country flight. The pilot described that he flared the airplane slightly high and that it, “skipped and then settled.” The landing roll seemed normal until the left main landing gear collapsed and the airplane departed the runway. The pilot further characterized that the touchdown wasn’t particularly hard, compared to landings he had previously made in other airplanes. The airplane’s horizontal stabilizer and elevator were substantially damaged during the runway excursion. Following the accident, the pilot had the airplane repaired by its original builder, which included replacing a section of threaded rod on the left main landing gear that had broken, which was part of the landing gear down-locking mechanism. Based on this information, it is likely that the failure of the threaded rod resulted in the landing gear collapse and subsequent runway excursion.

## Probable Cause and Findings

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

A failure of the left main landing gear down locking mechanism, which resulted in a collapse of that landing gear and a subsequent runway excursion.

## Findings

**Aircraft**

Main landing gear - Failure

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Sys/Comp malf/fail (non-power) (Defining event)
<b>Landing-landing roll</b>	Runway excursion
<b>Landing-landing roll</b>	Landing gear collapse

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	68, 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>	
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	February 28, 2023
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	November 16, 2021
<b>Flight Time:</b>	1936 hours (Total, all aircraft), 6 hours (Total, this make and model), 1860 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	GILBERT R. RINGER	<b>Registration:</b>	C-GPEX
<b>Model/Series:</b>	GP4	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2016	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	GP4-438
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 24, 2023 Annual	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>	57 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	57 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C126 installed, not activated	<b>Engine Model/Series:</b>	IO-360-A1B
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	200 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	BDR, 6 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	09:52 Local	<b>Direction from Accident Site:</b>	264°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 900 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	90°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.26 inches Hg	<b>Temperature/Dew Point:</b>	9°C / 6°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Bangor, ME (BGR)	<b>Type of Flight Plan Filed:</b>	VFR
<b>Destination:</b>	Stratford, CT	<b>Type of Clearance:</b>	VFR; VFR flight following
<b>Departure Time:</b>	07:36 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	IGOR I SIKORSKY MEML BDR	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	8 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	24	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4677 ft / 100 ft	<b>VFR Approach/Landing:</b>	Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<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>	41.164347,-73.122274(est)

## Administrative Information

**Investigator In Charge (IIC):** Diaz, Dennis

**Additional Participating Persons:** Kevin Godbout; FAA/FSDO; Enfield, CT  
Beverley Harvey ; TSB Canada; Gatineau

**Original Publish Date:** July 27, 2023

**Last Revision Date:**

**Investigation Class:** [Class 4](#)

**Note:** The NTSB did not travel to the scene of this accident.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=107809>

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