



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Boulder City, NV	<b>Accident Number:</b>	WPR14LA084
<b>Date &amp; Time:</b>	01/01/2014, 1507 PST	<b>Registration:</b>	N133GC
<b>Aircraft:</b>	EUROCOPTER EC 130 B4	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Flight Test		

## Analysis

The pilot stated that, during a postmaintenance operational check flight and while on final approach for landing, the fuel pressure indicator light illuminated, and the engine “flamed out.” The pilot lowered the collective to initiate an autorotation; however, due to the low altitude and airspeed, the helicopter subsequently landed hard and rolled over.

During a postaccident examination of the wreckage, a main fuel supply line B-nut fitting was found without the safety wire, and the nut was loose when turned by hand. Before the accident flight, the line had been disconnected during a task to replace the bidirectional suspension cross-bar assembly, and the accident flight was the first flight since the task was performed. According to the noncertificated maintenance technician who performed the task, the line was removed to defuel the fuel tank, which was contrary to manufacturer’s maintenance manual instructions. Based on the evidence, it is likely that the B-nut fitting was not properly tightened and safety-wired during reassembly, which allowed it to back off due to normal engine vibration and resulted in the interruption of the fuel flow during flight.

## Flight Events

Approach-VFR pattern final - Loss of engine power (total)

Autorotation - Hard landing

Autorotation - Collision with terr/obj (non-CFIT)

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power due to fuel starvation as a result of the noncertificated maintenance technician’s failure to properly tighten and safety wire a B-nut fitting. Contributing to the accident was the maintenance technician’s failure to follow the manufacturer’s maintenance manual instructions.

## Findings

Aircraft-Fluids/misc hardware-Fluids-Fuel-Not specified - C

Aircraft-Fluids/misc hardware-Misc hardware-(general)-Incorrect service/maintenance - C

Personnel issues-Task performance-Maintenance-Installation-Maintenance personnel - C

Personnel issues-Task performance-Use of equip/info-Use of manual-Maintenance personnel - F

Personnel issues-Task performance-Maintenance-(general)-Maintenance personnel - F

Personnel issues-Experience/knowledge-Experience/qualifications-Qualification/certification-Maintenance personnel - C

## Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	28
<b>Airplane Rating(s):</b>	None	<b>Instrument Rating(s):</b>	Helicopter
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Instructor Rating(s):</b>	Helicopter
<b>Flight Time:</b>	2157 hours (Total, all aircraft), 537 hours (Total, this make and model), 2126 hours (Pilot In Command, all aircraft), 63 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	EUROCOPTER	<b>Registration:</b>	N133GC
<b>Model/Series:</b>	EC 130 B4 B	<b>Engines:</b>	Turbo Shaft
<b>Operator:</b>	Papillon Airways Inc.	<b>Engine Manufacturer:</b>	Turbomeca
<b>Air Carrier Operating Certificate:</b>	Rotorcraft External Load (133); On-demand Air Taxi (135)	<b>Engine Model/Series:</b>	Aerial 2B1
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Flight Test		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	KBVU, 2203 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	None
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	4 knots, 320°
<b>Temperature:</b>	19° C / -6° C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Boulder City, NV (KBVU)	<b>Destination:</b>	Boulder City, NV (KBVU)

## Airport Information

<b>Airport:</b>	BOULDER CITY MUNI (BVU)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	27R	<b>Runway Surface Condition:</b>	Dry
<b>Runway Length/Width:</b>	2166 ft / 60 ft		

## 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

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Andrew L Swick	<b>Adopted Date:</b>	07/13/2015
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=88613">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=88613</a>		

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