



# Aviation Investigation Final Report

<b>Location:</b>	HILLSBORO, Oregon	<b>Accident Number:</b>	SEA84LA021
<b>Date &amp; Time:</b>	November 15, 1983, 08:35 Local	<b>Registration:</b>	N8622U
<b>Aircraft:</b>	ENSTROM F28F	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE ACFT DID A HARD LANDING DURING AUTOROTATION AFTER THE ENGINE RAN ROUGH AND QUIT AT 250 FT AGL DURING TAKEOFF. THE PILOT HAD LEANED THE MIXTURE, HE SAID, PRIOR TO TAKEOFF AND HE WAS NOT SURE IF HE PUSHED THE MIXTURE TO FULL RICH WHEN THE ENGINE STARTED TO MISS AND RUN ROUGH. DURING AUTOROTATION HE MAINTAINED 50 MPH WITH LITTLE FLARE FOR LANDING. THE ENGINE WAS CHECKED AFTER THE ACCIDENT AND OPERATED NORMALLY. THE MIXTURE WAS SLOWLY TURNED TO SEE HOW IT WOULD BE WHEN THE ENGINE RAN ROUGH. IT WAS ABOUT 3 INCHES FROM FULL RICH.

## Probable Cause and Findings

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

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: TAKEOFF - INITIAL CLIMB

#### Findings

1. (C) MIXTURE - IMPROPER - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

2. (F) AUTOROTATION - PERFORMED - PILOT IN COMMAND

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Occurrence #3: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	35, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	September 20, 1983
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	307 hours (Total, all aircraft), 71 hours (Total, this make and model), 165 hours (Pilot In Command, all aircraft), 51 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	ENSTROM	<b>Registration:</b>	N8622U
<b>Model/Series:</b>	F28F F28F	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	721
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	October 4, 1983 100 hour	<b>Certified Max Gross Wt.:</b>	2350 lbs
<b>Time Since Last Inspection:</b>	45 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	145 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	HIO-360-F1AD
<b>Registered Owner:</b>	JOHN BRUCE KIESSLING	<b>Rated Power:</b>	225 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	PDX ,26 ft msl	<b>Distance from Accident Site:</b>	15 Nautical Miles
<b>Observation Time:</b>	08:00 Local	<b>Direction from Accident Site:</b>	42°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	Broken / 5500 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	110°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	HILLSBORO , OR (HIO )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	SALT LAKE CITY , UT (U42 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:30 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor, 1 None	<b>Latitude, Longitude:</b>	45.57973,-122.910354(est)

## Administrative Information

**Investigator In Charge (IIC):** Carrera, Candace

**Additional Participating Persons:**

**Original Publish Date:**

**Last Revision Date:**

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

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=39851>

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