Aviation Investigation Final Report

Location:	OGDEN, Utah	**Accident Number:**	SEA94LA044
Date & Time:	December 31, 1993, 14:00 Local	**Registration:**	HBYDJ
Aircraft:	SOMMERAUER GLASAIR I RG	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

AFTER EXPERIENCING A COMPLETE LOSS OF ENGINE POWER, THE PILOT ATTEMPTED A FORCED GEAR-UP LANDING ON SOFT ROUGH TERRAIN. AFTER TOUCHDOWN THE AIRCRAFT SUSTAINED SUBSTANTIAL DAMAGE. AN FAA INSPECTOR LATER FOUND THAT A FUEL LINE-TO-ENGINE FITTING NUT, WHICH HAD BEEN ON THE AIRCRAFT FOR OVER 85 HOURS, HAD COME LOOSE, RESULTING IN FUEL STARVATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A LOOSE FUEL LINE FITTING, AND FUEL STARVATION. FACTORS INCLUDE AN INTENTIONAL WHEELS UP FORCED LANDING, AND SOFT ROUGH/UNEVEN TERRAIN.

Findings

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

Findings
1. (C) FLUID,FUEL - STARVATION
2. (C) FUEL SYSTEM,LINE FITTING - LOOSE

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
3. (F) WHEELS UP LANDING - INTENTIONAL - PILOT IN COMMAND
4. (F) TERRAIN CONDITION - ROUGH/UNEVEN
5. (F) TERRAIN CONDITION - SOFT

Factual Information

On December 31, 1993, approximately 1400 mountain standard time (MST), a Swiss registered Glasair I RG experimental aircraft, HBYDJ, impacted the terrain during a forced landing near Ogden, Utah. The private pilot, who was the sole occupant, was not injured, but the aircraft sustained substantial damage. The pilot, who was on a local pleasure flight, departed Ogden-Hinckley Municipal Airport about 20 minutes earlier. The pilot had not filed a flight plan, and there was no report of an ELT activation.

According to the pilot, the engine lost power, and he attempted a forced landing on rough soft terrain. During the emergency descent, he made the decision to land with the gear up in an attempt to minimize the damage to the aircraft.

An FAA inspector who responded to the accident found that a stainless steel nut on the fuel line-to-engine fitting had come loose, resulting in an interruption in the fuel flow to the engine. According to the pilot/manufacturer, the nut that came loose had been used to hold the fuel line to the engine for over 85 hours of powerplant operation.

Pilot Information

Certificate:	Private	**Age:**	49,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	June 13, 1993
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	878 hours (Total, all aircraft), 430 hours (Total, this make and model), 742 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SOMMERAUER	**Registration:**	HBYDJ
Model/Series:	GLASAIR I RG GLASAIR I	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	709
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	July 16, 1993 AAIP	**Certified Max Gross Wt.:**	2100 lbs
Time Since Last Inspection:	46 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	398 Hrs	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-320-A1A
Registered Owner:	SOMMERAUER, JURG	**Rated Power:**	160 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	20 miles
Lowest Ceiling:	Overcast / 6000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	2°C / -3°C
Precipitation and Obscuration:	N/A - None - Haze		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	13:45 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	41.180198,-111.909523(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	TIM MASON; SALT LAKE CITY,, UT
Original Publish Date:	October 20, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=41864