



# **Aviation Investigation Final Report**

Location: Renton, Washington Accident Number: WPR16LA187

Date & Time: September 18, 2016, 15:00 Local Registration: N57TJ

Aircraft: JURCAN Seawind 3000 Aircraft Damage: Substantial

**Defining Event:** Landing gear not configured **Injuries:** 1 None

Flight Conducted Under: Part 91: General aviation - Personal

### **Analysis**

The private pilot was conducting a cross-country personal flight. He reported that, after arriving at his destination and trying to ensure that the airplane was configured for the water landing, he observed that the right main landing gear (MLG) indicator light was off and that the hydraulic pressure read 0. The pilot then attempted to retract the right MLG several times to no avail. He chose to fly to a nearby airport with a paved runway, where the tower controller confirmed that the right MLG was extended but that the left MLG and nose landing gears were retracted. The pilot attempted to use the backup manual hydraulic pump and abrupt maneuvers to extend the remaining landing gear to no avail. The pilot chose to land on the runway with the landing gear partially retracted. The airplane touched down on the runway with the right MLG first. The pilot held the left wing off the runway as long as possible, but then the wing touched the runway, and the airplane veered off the runway surface. The airplane slid along the grass, impacted an airport sign and light, spun 180°, and then came to a rest.

Postaccident examination of the airplane revealed that a hydraulic leak had originated from a cracked flare in a hydraulic line fitting, which caused the hydraulic fluid to leak, decreased the hydraulic pressure to 0, and prevented the landing gear system from fully extending or retracting.

### **Probable Cause and Findings**

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

The failure of the landing gear system to either fully retract or extend due to a cracked hydraulic fitting flare, which resulted in the loss of hydraulic pressure.

### **Findings**

Aircraft Gear extension and retract sys - Fatigue/wear/corrosion

Aircraft Hydraulic, main system - Failure

Environmental issues Runway/taxi/approach light - Contributed to outcome

**Environmental issues** Sign/marker - Contributed to outcome

Page 2 of 6 WPR16LA187

#### **Factual Information**

#### **History of Flight**

Landing gear not configured (Defining event)

**Landing** Abnormal runway contact

**Landing** Runway excursion

**Landing-landing roll** Collision with terr/obj (non-CFIT)

On September 18, 2016, about 1500 Pacific daylight time, a Jurcan Seawind 3000 airplane, N57TJ, impacted a runway sign after landing with a landing gear malfunction at the Renton Municipal Airport (RNT), Renton, Washington. The pilot and one passenger were not injured, and the airplane sustained substantial damage to the left wing. The airplane was registered to, and operated by, the pilot as a personal flight under 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed at the time of the accident, and no flight plan was filed. The airplane departed from Lampson Field Airport (1O2) Lakeport, California at 1040 and was originally destined for Lake Sammamish, Issaquah, Washington.

The pilot reported that after arriving at Lake Sammamish, they observed that the right main landing gear indicator light was off and the hydraulic pressure read zero. The pilot attempted to retract the right landing gear several times, but to no avail. He elected to fly to a nearby airport, where the control tower confirmed that the right main landing gear was extended, while the left main and nose landing gears remained retracted. The pilot attempted to use the back-up manual hydraulic pump as well as abrupt maneuvers to lower the remaining landing gears, however, to no avail. The pilot elected to land onto the runway with the abnormal landing gear configuration. The airplane touched down onto the runway right landing gear first. The pilot held the left wing off the runway as long as possible, but when the wing touched the runway, the airplane veered off the runway surface. It slid along the grass and impacted an airport sign and light, before spinning 180 degrees and coming to a rest.

Postaccident examination of the airplane revealed a hydraulic leak that originated at a cracked flare in a hydraulic line fitting. This fitting was located on the bulkhead between the cabin and nose compartment that leads directly into the nose gear actuator.

Page 3 of 6 WPR16LA187

### **Pilot Information**

Certificate:	Private	Age:	73,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	July 19, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 14, 2015
Flight Time:	1984 hours (Total, all aircraft), 130 hours (Total, this make and model), 1984 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

# **Aircraft and Owner/Operator Information**

Aircraft Make:	JURCAN	Registration:	N57TJ
Model/Series:	Seawind 3000	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Normal; Experimental (Special)	Serial Number:	52
Landing Gear Type:	Tricycle; Amphibian; Hull	Seats:	
Date/Type of Last Inspection:	October 15, 2015 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	70 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	132 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	AEI0540-L1B5
Registered Owner:	On file	Rated Power:	300 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Page 4 of 6 WPR16LA187

### Meteorological Information and Flight Plan

Conditions at Accident Site: Visual (VMC) Condition of Light: Day  Observation Facility, Elevation: RNT,32 ft msl Distance from Accident Site: 1 Nautical Miles  Observation Time: 14:53 Local Direction from Accident Site:  Lowest Cloud Condition: Clear Visibility 10 miles  Lowest Ceiling: None Visibility (RVR):  Wind Speed/Gusts: 6 knots / Turbulence Type Forecast/Actual:  Wind Direction: Turbulence Severity Forecast/Actual: / N/A  Altimeter Setting: 30.05 inches Hg Temperature/Dew Point: 19°C / 11°C  Precipitation and Obscuration: No Obscuration; No Precipitation				
Observation Time: 14:53 Local Direction from Accident Site:  Lowest Cloud Condition: Clear Visibility 10 miles  Lowest Ceiling: None Visibility (RVR):  Wind Speed/Gusts: 6 knots / Turbulence Type Forecast/Actual:  Wind Direction: Turbulence Severity Forecast/Actual:  Altimeter Setting: 30.05 inches Hg Temperature/Dew Point: 19°C / 11°C  Precipitation and Obscuration: No Obscuration; No Precipitation	Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Lowest Cloud Condition:       Clear       Visibility       10 miles         Lowest Ceiling:       None       Visibility (RVR):         Wind Speed/Gusts:       6 knots /       Turbulence Type Forecast/Actual:       / None         Wind Direction:       Turbulence Severity Forecast/Actual:       / N/A         Altimeter Setting:       30.05 inches Hg       Temperature/Dew Point:       19°C / 11°C         Precipitation and Obscuration:       No Obscuration; No Precipitation	Observation Facility, Elevation:	RNT,32 ft msl	Distance from Accident Site:	1 Nautical Miles
Lowest Ceiling: None Visibility (RVR):  Wind Speed/Gusts: 6 knots / Turbulence Type Forecast/Actual:  Wind Direction: Turbulence Severity Forecast/Actual:  Altimeter Setting: 30.05 inches Hg Temperature/Dew Point: 19°C / 11°C  Precipitation and Obscuration: No Obscuration; No Precipitation	Observation Time:	14:53 Local	Direction from Accident Site:	
Wind Speed/Gusts:  Wind Direction:  Turbulence Type Forecast/Actual:  Turbulence Severity Forecast/Actual:  Altimeter Setting:  30.05 inches Hg  Temperature/Dew Point:  19°C / 11°C  Precipitation and Obscuration:  No Obscuration; No Precipitation	<b>Lowest Cloud Condition:</b>	Clear	Visibility	10 miles
Wind Direction: Turbulence Severity Forecast/Actual:  Altimeter Setting: 30.05 inches Hg Temperature/Dew Point: 19°C / 11°C Precipitation and Obscuration: No Obscuration; No Precipitation	Lowest Ceiling:	None	Visibility (RVR):	
Forecast/Actual:  Altimeter Setting: 30.05 inches Hg Temperature/Dew Point: 19°C / 11°C  Precipitation and Obscuration: No Obscuration; No Precipitation	Wind Speed/Gusts:	6 knots /		/ None
Precipitation and Obscuration: No Obscuration; No Precipitation	Wind Direction:			/ N/A
	Altimeter Setting:	30.05 inches Hg	Temperature/Dew Point:	19°C / 11°C
Departure Deints Lokeport CA (102) Type of Flight Dien Fileds None	Precipitation and Obscuration:	No Obscuration; No Precipita	tion	
Departure Point. Lakeport, CA (102) Type of Flight Plan Filed. None	Departure Point:	Lakeport, CA (102)	Type of Flight Plan Filed:	None
<b>Destination:</b> Renton, WA (RNT) <b>Type of Clearance:</b> VFR flight following	Destination:	Renton, WA (RNT)	Type of Clearance:	VFR flight following
Departure Time: 11:00 Local Type of Airspace: Class D	Departure Time:	11:00 Local	Type of Airspace:	Class D

# **Airport Information**

Airport:	Renton Municipal Airport RNT	Runway Surface Type:	Asphalt
Airport Elevation:	32 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	16	IFR Approach:	None
Runway Length/Width:	5382 ft / 200 ft	VFR Approach/Landing:	Traffic pattern

# 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:	47.489166,-122.209442(est)

Page 5 of 6 WPR16LA187

#### **Administrative Information**

Investigator In Charge (IIC):	Link, Samantha
Additional Participating Persons:	Gaddie Orcullo; Federal Aviation Administration; Renton, WA
Original Publish Date:	June 14, 2017
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=94091

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

Page 6 of 6 WPR16LA187