



National Transportation Safety Board Aviation Accident Final Report

Location:	Fullerton, CA	Accident Number:	WPR11LA363
Date & Time:	06/01/2011, 1640 PDT	Registration:	N340BG
Aircraft:	CESSNA 340A	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that, at the conclusion of a flight, he made a normal landing and commenced a turn off the runway. While negotiating the turn toward a taxiway, the left brake ceased to properly function, and the airplane rolled into the soft dirt terrain adjacent to the taxiway. The subsequent examination of the airplane revealed that a weld had fractured in fatigue in the left engine's oil return line, which was located near the left main landing gear wheel assembly. The wheel and brake assembly were covered in oil. The oil significantly inhibited the brake's functionality and effectively reduced the braking capability to zero, which resulted in the pilot's loss of directional control.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inability to maintain directional control during landing due to the left brake's degraded performance due to oil contamination, which resulted from the fatigue failure of an oil line component.

Findings

Aircraft	Brake - Damaged/degraded (Cause)
	Directional control - Attain/maintain not possible
	Eng oil sys (airframe furnish) - Fatigue/wear/corrosion (Cause)

Factual Information

On June 1, 2011, about 1640 Pacific daylight time, a Cessna 340A, N340BG, was substantially damaged when its nose gear collapsed and deformed primary airframe structure in the wheel well. The event occurred when the pilot lost directional control as he taxied off runway 24 following an uneventful landing at the Fullerton Municipal Airport (FUL), Fullerton, California. Neither the airline transport certificated pilot nor passenger was injured. The airplane was registered to and operated by Humanitarian Airlift International, Coto de Caza, California. The personal flight was performed under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed, and no flight plan was filed. The airplane departed Riverside, California, about 1545.

According to the pilot, following completion of maintenance he took off to reposition the airplane. No evidence of mechanical anomalies were noted, and his landing at FUL was normal. Near the completion of the landing rollout, with normal and effective braking, the pilot initiated a turn off the runway. During this event, the left brake system failed, and the airplane veered into soft dirt adjacent to the runway. The nose wheel dug into the dirt and collapsed.

During the airplane's subsequent examination by an airframe and powerplant mechanic, a broken weld was found in the left engine's oil return line. The weld was located adjacent to the line's outlet nipple at the rear engine case. The line was routed to the case from the vacuum pump air-oil separator. Leaking oil from this broken weld had coated the rear engine case and left main landing gear brake assembly. According to the mechanic, engine oil on the left gear and wheel/ brake assembly caused braking action on the left brake to be reduced to zero. The weld break appeared related to fatigue.

History of Flight

Taxi-from runway	Sys/Comp malf/fail (non-power)
	Loss of control on ground (Defining event)
	Landing gear collapse

Pilot Information

Certificate:	Airline Transport	Age:	49, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last Medical Exam:	12/08/2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	02/24/2011
Flight Time:	3298 hours (Total, all aircraft), 73 hours (Total, this make and model), 1250 hours (Pilot In Command, all aircraft), 38 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N340BG
Model/Series:	340A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	340A-0068
Landing Gear Type:	Tricycle	Seats:	6
Date/Type of Last Inspection:	02/17/2011, Annual	Certified Max Gross Wt.:	6290 lbs
Time Since Last Inspection:	51 Hours	Engines:	2 Reciprocating
Airframe Total Time:	4406 Hours	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520NB
Registered Owner:	HUMANITARIAN AIRLIFT INTERNATIONAL	Rated Power:	310 hp
Operator:	HUMANITARIAN AIRLIFT INTERNATIONAL	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	FUL, 96 ft msl	Observation Time:	1653 PDT
Distance from Accident Site:	0 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	21° C / 6° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	6 knots, Variable	Visibility (RVR):	
Altimeter Setting:	30.02 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Riverside, CA (RIR)	Type of Flight Plan Filed:	None
Destination:	Fullerton, CA (FUL)	Type of Clearance:	VFR
Departure Time:	1545 PDT	Type of Airspace:	

Airport Information

Airport:	Fullerton Municipal (FUL)	Runway Surface Type:	Asphalt
Airport Elevation:	96 ft	Runway Surface Condition:	Dry
Runway Used:	24	IFR Approach:	None
Runway Length/Width:	3121 ft / 75 ft	VFR Approach/Landing:	Full Stop; Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None		

Administrative Information

Investigator In Charge (IIC):	Wayne R Pollack	Adopted Date:	02/12/2013
Additional Participating Persons:	Robert Kemp; Federal Aviation Administration; Long Beach, CA		
Publish Date:	02/12/2013		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=81366		

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