National Transportation Safety Board
Aviation Accident Factual Report

Location:	LEBANON, OH	**Accident Number:**	IAD98LA087
Date & Time:	08/01/1998, 1040 EDT	**Registration:**	N733LK
Aircraft:	Cessna 172N	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General Aviation - Instructional		

On August 1, 1998, at 1040 eastern daylight time, a Cessna 172N, N733LK, was substantially damaged when it collided with an automobile during an aborted landing at the Brownies Lebanon Airport (19I), Lebanon, Ohio. The certificated flight instructor, student pilot, and the driver of the automobile were not injured. Visual meteorological conditions prevailed for the instructional flight that originated at Blue Ash (ISZ), Ohio, at 1000. No flight plan was filed for the flight conducted under 14 CFR Part 91.

In two written statements, the flight instructor stated the purpose of the flight was to provide dual instruction to one of his students. After several practice maneuvers and a recovery from a simulated engine failure, the student pilot asked the instructor to demonstrate a sod field landing. The instructor set up for an approach and landing to the west at 19I. The sod runway was approximately parallel to runway 27. Both the sod and paved runways joined at the western ends.

The flight instructor stated:

"Since we were only a few miles from Brownies (19I), I told him I would show him on the grass field over there. I started a short, soft field approach with full flaps at 60 kts. I would estimate my point of touchdown at 50 ft from the start of the runway. As we attempted to slow down for a full stop the plane started to slide. At that point (about 120 ft from touchdown) I decided to do a go around and try again. I applied full power, took off the carb heat and attempted to raise the flaps. As I glanced in at the Airspeed I noticed it was not climbing like it should, only to realize the flaps did not retract. I tapped the brakes to see if stopping would be possible. We again just slid, but at this point the flaps began to retract, causing a sudden loss of lift. I now was at the tall grass at the end, and it further impeded my attempts to gain airspeed. I approached the end of the runway and was still [too] slow to sustain flight. As the ditch, fence, and road approached I attempted to "pop" the plane up to avoid hitting the ditch and cartwheeling into the fence or road. I cleared the ditch and fence, but was forced to lower the pitch to avoid losing directional control of the aircraft from a full stall. As the plane settled downward, it struck the roof of a passing car...Due to the extra drag from the grass and hesitation in the flaps, I was unable to gain enough airspeed for flight".

The student pilot said:

"I requested that the instructor land on the grass runway so that I would know what grass field landings would be like in an emergency. The instructor was in full control of the aircraft. Descent was with full flaps, idle power requiring little rudder adjustment. Landing was soft on the grass at approximately the normal point for runway numbering (Say it would be about 30 feet from the runway edge). Upon braking, the aircraft seemed to slide, as if it were on ice. The instructor determined to take off. He proceeded to place carburetor heat off, full throttle, and flaps up. The aircraft seemed sluggish, possibly even slowed or dragging. The aircraft once airborne, passed over a barbed wire fence at the end of the runway. At that point I heard the stall warning. The instructor pitched the nose down. The aircraft descended slightly and hit the roof of a Buick, gained some altitude, passing beyond the second lane of traffic and another barbed wire fence, landing in a field avoiding several trees".

In a written statement, a pilot who had flown N733LK approximately one month prior to the accident stated that the flaps failed to retract from the 40 degree position while he performed a touch-and-go. He said, "The flaps on N733LK on touch and go stuck down...at 40 degrees around the dates of June 1-June 30 [1998]."

In a telephone interview, a Federal Aviation Administration Aviation (FAA) Safety Inspector stated the mechanic who recovered N733LK cycled the flaps through the full range several times. The mechanic stated the flaps deployed and retracted with no malfunctions noted.

In a telephone interview, the flight instructor stated the flaps on another Cessna 172 in the operator's fleet failed to retract on a recent flight. He said, "The same thing happened on July 2, 1998." The flight instructor stated he remembered the airplane's registration number and verified the date with the maintenance records.

On August 6, 1998, an FAA Inspector examined the flap operation of two Cessna 172's in the operator's fleet. According to a written statement:

"Aircraft were checked by [Inspector]...both were good. One aircraft was in for maintenance while he was there and they checked the flaps with a protractor, and the cable tensions, all to [specification]. The switches were all clean and no problems found there. The maintenance for these aircraft are on the Cessna Maintenance Program."

In a telephone interview, the owner/operator said repairs were completed and N733LK was placed back in service on October 22, 1998, at 4,609 aircraft hours. Maintenance entries reflected repairs to aircraft structure and skin. No repairs were made to the flaps or the flap actuating system. An annual inspection was completed on the airplane at 4,621 aircraft hours and an engine change was performed at 4,684 aircraft hours. The owner/operator said that from the time of the repairs to the time of the interview, no problems had been noted in the performance or handling of N733LK.

At the time of the accident, weather reported at the Cincinnati Municipal Airport (Lunken Field) was: clear skies with winds from 080 degrees at 7 knots. The temperature was 74 degrees and the dewpoint was 54 degrees.

The flight instructor reported 390 hours of total flight experience of which 194 were in make and model. He also reported 98 hours of experience as a flight instructor of which 84 hours were in make and model.

Pilot Information

Certificate:	Commercial	**Age:**	24, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane Single-engine; Instrument Airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	07/20/1998
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	390 hours (Total, all aircraft), 194 hours (Total, this make and model), 293 hours (Pilot In Command, all aircraft), 86 hours (Last 90 days, all aircraft), 22 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N733LK
Model/Series:	172N 172N	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	68373
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	06/26/1998, Annual	**Certified Max Gross Wt.:**	2300 lbs
Time Since Last Inspection:	69 Hours	**Engines:**	1 Reciprocating
Airframe Total Time:	4602 Hours	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-320-H2AD
Registered Owner:	PHILIP N. SCHMIDT	**Rated Power:**	160 hp
Operator:	PHILIP N. SCHMIDT	**Operating Certificate(s) Held:**	None
Operator Does Business As:	SCHMIDT AVIATION	**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	LUK, 483 ft msl	**Distance from Accident Site:**	19 Nautical Miles
Observation Time:	1053 EDT	**Direction from Accident Site:**	30°
Lowest Cloud Condition:	Clear / 0 ft agl	**Visibility**	10 Miles
Lowest Ceiling:	None / 0 ft agl	**Visibility (RVR):**	0 ft
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	80°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	23°C / 12°C
Precipitation and Obscuration:			
Departure Point:	BLUE ASH, OH (I77)	**Type of Flight Plan Filed:**	VFR
Destination:		**Type of Clearance:**	None
Departure Time:	1000 EDT	**Type of Airspace:**	Class G

Airport Information

Airport:	BROWNIES LEBANON AIRPORT (19I)	**Runway Surface Type:**	Grass/turf
Airport Elevation:	879 ft	**Runway Surface Condition:**	Wet
Runway Used:	27	**IFR Approach:**	None
Runway Length/Width:	2100 ft / 40 ft	**VFR Approach/Landing:**	Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	

Administrative Information

Investigator In Charge (IIC):	BRIAN C RAYNER
Additional Participating Persons:	LES KORODY; CINCINNATI, OH STAN FASKE; CINCINNATI, OH
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.