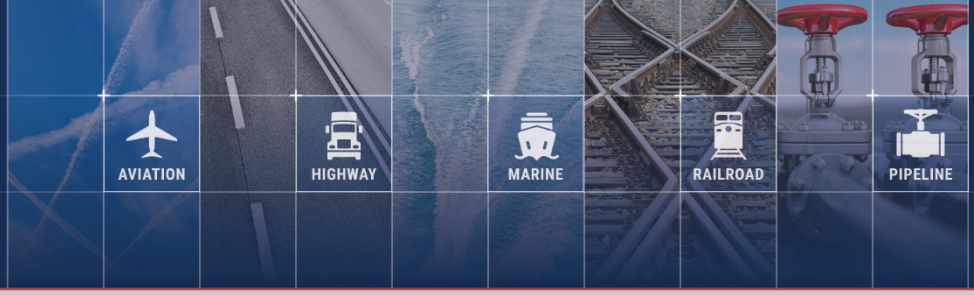

Aviation Investigation Final Report

Location:	HUNTER, Oklahoma	**Accident Number:**	FTW00LA132
Date & Time:	April 26, 2000, 13:50 Local	**Registration:**	N76176
Aircraft:	Cessna 140	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While en route, following a decrease of oil pressure, the pilot shut down the engine. During the forced landing flare/touchdown in the field, the main landing gear struck a fence and the airplane nosed over. At the site, oil was found covering the lower surface of the airplane from the engine cowling to the empennage, and the oil cap was not found. The engine and aircraft manufacturers did not have any record where a secured oil cap came off in flight. The aircraft representative stated that if the 'tabs inside the filler cap became corroded completely through, they would not retain the cap properly.' A mechanic, who recovered the airplane from the field, stated that the oil cap was not found, and he noticed no discrepancies or rust on the oil filler neck. The manufacturer's preflight checklist states in part: 'Check oil level.' The operating details states in part: 'In replacing the cap, make sure that it is on firmly and turned all the way to the stop at the right to prevent loss of oil through the filler neck.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate preflight resulting in the loss of the oil cap and subsequent loss of engine oil. A factor was the lack of suitable terrain for the landing.

Findings

Occurrence #1: MISCELLANEOUS/OTHER
Phase of Operation: CRUISE

Findings
1. (C) LUBRICATING SYSTEM,OIL FILLER CAP - MISSING
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. FLUID,OIL - LOSS,PARTIAL

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
4. (F) TERRAIN CONDITION - NONE SUITABLE
5. TERRAIN CONDITION - CROP
6. OBJECT - FENCE

Occurrence #4: NOSE OVER
Phase of Operation: LANDING - ROLL

Factual Information

On April 26, 2000, at 1350 central daylight time, a Cessna 140, single-engine airplane, N76176, struck a fence during a forced landing following a loss of oil pressure near Hunter, Oklahoma. The airplane was owned and operated by the private pilot. The private pilot, sole occupant, was not injured, and the airplane sustained substantial damage. Visual meteorological conditions prevailed for the cross-country flight, and a flight plan was not filed. The 14 Code of Federal Regulations Part 91 personal flight departed Justin, Texas, at 1020, with a planned destination of Des Moines, Iowa.

The pilot reported on the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) that the flight was en route when the oil pressure started to decrease. The pilot shut down the engine and picked a field for the landing. Prior to the touchdown, the pilot saw a fence in the center of the field. The main landing gear struck the fence, and the airplane flipped to the inverted position.

The FAA inspector responding to the accident site found the airplane (36 degrees 33 minutes north; 097 degrees 24 minutes west) approximately 50 feet north of the fence. The inspector and the pilot found oil covering the lower surface of the airplane from the engine cowling to the empennage. The FAA inspector stated that the "oil cap was not found at the site." The pilot stated that he thought the oil cap was on during the preflight and came off in-flight. Structural damage was found at the engine mount, right wing strut, and the vertical stabilizer.

On the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2), the pilot stated that the oil cap was lost in flight. He recommended "safety A.D. [airworthiness directive] on all oil caps."

The pilot reported to the NTSB investigator-in-charge that the oil cap did not have a retainer safety chain. He stated that he had put the oil cap on this make and model of aircraft hundreds of times in his history of flying.

The Teledyne Continental engine and Cessna Aircraft Company representatives reported that the manufacturers did not have any history where a secured oil cap came off in flight. The aircraft representative further stated that if the "tabs inside the filler cap became corroded completely through, they would not retain the cap properly."

A mechanic, who recovered the airplane from the field, stated that the oil cap was not found. He further stated that he did notice any discrepancies or rust on the oil filler neck.

The manufacturer's preflight checklist states in part: A. BEFORE ENTERING THE AIRPLANE (1) Check oil level. The operating details states in part: Oil Level: The quantity can be checked

easily by raising the hood on the right side and reading the quantity in the sump directly on the stick attached to the oil tank cap. In replacing the cap, make sure that it is on firmly and turned all the way to the stop at the right to prevent loss of oil through the filler neck.

Pilot Information

Certificate:	Private	**Age:**	67,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:**	March 6, 2000
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	1000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N76176
Model/Series:	140 140	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	10573
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	1495 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:	Installed	**Engine Model/Series:**	C-90-12F
Registered Owner:	GILBERT E. JOHNSON	**Rated Power:**	90 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:	Clear	**Visibility**	10 miles
Lowest Ceiling:	Unknown	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	JUSTIN , TX (NONE)	**Type of Flight Plan Filed:**	None
Destination:	DES MOINES , IA (DSM)	**Type of Clearance:**	None
Departure Time:	00:00 Local	**Type of Airspace:**	Class E

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	Vegetation
Runway Used:	0	**IFR Approach:**	
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:**	36.559967,-97.660095(est)

Administrative Information

Investigator In Charge (IIC):	Roach, Joyce
Additional Participating Persons:	ROBERT E SHOOK; OKLAHOMA CITY , OK
Original Publish Date:	July 17, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49075