

## Communication Summary

09/20/18

Information from: Mr. Michael Funk, prior owner N6550L

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Summary & Factual Information: Mr. Funk was asked to confirm that he flew the accident airplane on April 12th about 1000 cdt, and to give his recollections and anything relevant to the safety investigation. He, in part, reported: Yes. I did fly N6550L on April 12th with the mechanic/pilot and were doing a maintenance test flight because of an engine swap. The original flight was intended to be with the pilot that purchased the aircraft a month prior to fly the aircraft back to his home base outside of PHL. Since he was a student pilot, he would not have been able to fly the aircraft back himself. After conducting a preflight, we found 2 blocks of wood behind the rudder pedals that prevented them from moving. After removing them, the aircraft failed a run up because of roughness and we never even got the chance to check the magnetos. At that point, we taxied back to the hangar where the mechanic met us.

I thought the flying was done as there was something wrong with the engine. The mechanic felt that the roughness was caused by oil getting by the new piston rings and fouling the plugs. He removed the cowlings and the plugs which he said were fouled. After cleaning them and reinstalling the plugs, the engine appeared to run ok. Since the mechanic/pilot had an expired BFR, I ended up taking the right seat with him in the left seat for the check flight. He mentioned that he would have to run the engine at high power while taxiing to prevent fouling again. On taxi out, he was pilot flying and myself pilot monitoring. I was surprised when he took the active runway without doing a runup (which I assume was to prevent fouling by minimizing lower power ground Operations).

The takeoff power appeared normal until about 100 ft AGL where the engine failed abruptly and without warning. We nosed over immediately and put the aircraft on the remaining runway, stopping about 30 feet from the end. We set it down firmly, setting off the ELT I believe, but got it stopped within the runway mostly due to a strong quartering headwind of about 23 knots or so. I was extremely upset with the fact that we lost the engine after him being so certain that it was fouling of the

plugs, and failing to do a proper engine run up, especially in light of the roughness we had on the previous taxi out.

About 35 years ago, in a Cessna 150 N704LQ, I had an engine failure with a student pilot at approximately 400 ft AGL while taking off at night at KCPS in Cahokia, IL (now St Louis Downtown Airport). It was an abrupt engine failure (without warning) after about 30 minutes of doing night touch and go landings. We landed straight ahead off the airport, touching down about 50 ft short of a drainage ditch that was 30 feet across and about 6 feet deep. The aircraft was written off because of the impact damage from the ditch, but neither the student nor myself were injured. The cause turned out to be a small piece of ice in the fuel selector on the floor that became loose after heating up or vibration, and subsequently lodged in the fuel line shutting off the fuel. They were able to determine this after pulling out the fuel selector, and allowing it to warm up in a can in a car. An AD subsequently came out installing a quick drain in the belly that allowed draining that low point in the system, and would help prevent ice from being able to form there (it was a January night when the accident occurred).

In that case, as was like our engine failure, the failure was complete and without warning. Both cases, the only option was a straight ahead landing. I was able to attempt a restart twice in the Cessna, but because of the lower altitude of the Grumman, we did not have time to attempt a restart. In that case it was more critical to get it on the remaining runway. I have no idea as to the cause of the failure in the Grumman, other than everything appeared normal in the initial Takeoff roll and Climb Out (before it failed completely and with very little warning (seconds at most)).

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I can attest that the above summary is correct to the best of my knowledge:

**Edward F. Malinowski**  
**National Transportation Safety Board**  
**Air Safety Investigator**



# National Transportation Safety Board Aviation Accident Final Report

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|--------------------------------|-------------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | CAHOKIA, IL                               | <b>Accident Number:</b> | CHI83LA087  |
| <b>Date &amp; Time:</b>        | 01/19/1983, 1935 CST                      | <b>Registration:</b>    | N704LQ      |
| <b>Aircraft:</b>               | CESSNA 150M                               | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         |                                           | <b>Injuries:</b>        | 2 None      |
| <b>Flight Conducted Under:</b> | Part 91: General Aviation - Instructional |                         |             |

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## Analysis

THE ACFT COLLIDED WITH A DITCH DURING A FORCED LANDING AFTER THE ENGINE QUIT DURING A TAKEOFF CLIMB. THE STUDENT PILOT WAS CLIMBING OUT AFTER A TOUCH AND GO LANDING AND AT ABOUT 200 FT AGL THE ENGINE QUIT. THE CFI TOOK CONTROL OF THE ACFT AND CHECKED FOR AN ENGINE PROBLEM. AT ABOUT 150 FT AGL THE ENGINE RESTARTED AND THEY CLIMBED BACK TO 200 FT AGL WHEN THE ENGINE QUIT AGAIN. THE CFI LINED UP FOR AN OFF ARPT LANDING DURING WHICH THEY HIT A DRAINAGE DITCH. A FUEL LINE FROM THE SELECTOR VALVE TO THE ENGINE WAS INSPECTED AFTER THE ACCIDENT AND WATER CAME OUT OF THIS LINE AFTER IT WAS WARM. THE CFI SAID THE DRAINS AND SUMP WERE CHECKED DURING PREFLT BUT THEY WERE INEFFECTIVE SINCE THEY WERE NOT AT THE LOWEST POINT IN THE SYSTEM.

## Probable Cause and Findings

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

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. (F) FLUID,FUEL - WATER
  2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND(CFI)
  3. (F) FUEL SYSTEM,LINE - ICE
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Occurrence #2: FORCED LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

4. (F) LIGHT CONDITION - DARK NIGHT
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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

### Findings

5. (F) TERRAIN CONDITION - DITCH

## Factual Information

### Pilot Information

|                                  |                                                                                                                                                                                                    |                               |            |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------|
| <b>Certificate:</b>              | Flight Instructor; Commercial                                                                                                                                                                      | <b>Age:</b>                   | 19, Male   |
| <b>Airplane Rating(s):</b>       | Single-engine Land                                                                                                                                                                                 | <b>Seat Occupied:</b>         | Right      |
| <b>Other Aircraft Rating(s):</b> |                                                                                                                                                                                                    | <b>Restraint Used:</b>        | Seatbelt   |
| <b>Instrument Rating(s):</b>     | Airplane                                                                                                                                                                                           | <b>Second Pilot Present:</b>  | No         |
| <b>Instructor Rating(s):</b>     | Airplane Single-engine                                                                                                                                                                             | <b>Toxicology Performed:</b>  | No         |
| <b>Medical Certification:</b>    | Class 2 Valid Medical--no waivers/lim.                                                                                                                                                             | <b>Last FAA Medical Exam:</b> | 04/01/1982 |
| <b>Occupational Pilot:</b>       | <b>Last Flight Review or Equivalent:</b>                                                                                                                                                           |                               |            |
| <b>Flight Time:</b>              | 770 hours (Total, all aircraft), 475 hours (Total, this make and model), 660 hours (Pilot In Command, all aircraft), 140 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft) |                               |            |

### Aircraft and Owner/Operator Information

|                                      |                      |                                       |                 |
|--------------------------------------|----------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | CESSNA               | <b>Registration:</b>                  | N704LQ          |
| <b>Model/Series:</b>                 | 150M 150M            | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |                      | <b>Amateur Built:</b>                 | No              |
| <b>Airworthiness Certificate:</b>    | Normal               | <b>Serial Number:</b>                 | 15078699        |
| <b>Landing Gear Type:</b>            | Tricycle             | <b>Seats:</b>                         | 2               |
| <b>Date/Type of Last Inspection:</b> | 12/06/1983, 100 Hour | <b>Certified Max Gross Wt.:</b>       | 1600 lbs        |
| <b>Time Since Last Inspection:</b>   | 15 Hours             | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 1916 Hours           | <b>Engine Manufacturer:</b>           | CONTINENTAL     |
| <b>ELT:</b>                          | Not installed        | <b>Engine Model/Series:</b>           | O-200-A         |
| <b>Registered Owner:</b>             | JACK C. HILL         | <b>Rated Power:</b>                   | 100 hp          |
| <b>Operator:</b>                     | MICHAEL W. FUNK      | <b>Operating Certificate(s) Held:</b> | None            |

## Meteorological Information and Flight Plan

|                                  |                         |                                         |                  |
|----------------------------------|-------------------------|-----------------------------------------|------------------|
| Conditions at Accident Site:     | Visual Conditions       | Condition of Light:                     | Night/Dark       |
| Observation Facility, Elevation: | CPS, 413 ft msl         | Distance from Accident Site:            | 0 Nautical Miles |
| Observation Time:                | 1900 CST                | Direction from Accident Site:           | 0°               |
| Lowest Cloud Condition:          | Unknown / 0 ft agl      | Visibility                              | 12 Miles         |
| Lowest Ceiling:                  | Overcast / 10000 ft agl | Visibility (RVR):                       | 0 ft             |
| Wind Speed/Gusts:                | 10 knots /              | Turbulence Type<br>Forecast/Actual:     | /                |
| Wind Direction:                  | 90°                     | Turbulence Severity<br>Forecast/Actual: | /                |
| Altimeter Setting:               | 30 inches Hg            | Temperature/Dew Point:                  | -1°C / -9°C      |
| Precipitation and Obscuration:   |                         |                                         |                  |
| Departure Point:                 |                         | Type of Flight Plan Filed:              | None             |
| Destination:                     |                         | Type of Clearance:                      | None             |
| Departure Time:                  | 1900 CST                | Type of Airspace:                       | Class G          |

## Airport Information

|                      |                      |                           |                |
|----------------------|----------------------|---------------------------|----------------|
| Airport:             | BI-STATE PARKS (CPS) | Runway Surface Type:      | Concrete       |
| Airport Elevation:   | 413 ft               | Runway Surface Condition: | Dry            |
| Runway Used:         | 12                   | IFR Approach:             | None           |
| Runway Length/Width: | 5500 ft / 100 ft     | VFR Approach/Landing:     | Forced Landing |

## 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):     | CARL E DINWIDDIE                                                                                                                                                                                                                                                                                                                                                                                                         | Adopted Date: |  |
| Additional Participating Persons: |                                                                                                                                                                                                                                                                                                                                                                                                                          |               |  |
| Publish Date:                     |                                                                                                                                                                                                                                                                                                                                                                                                                          |               |  |
| 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> . |               |  |

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