



# Aviation Investigation Final Report

|                                |                                      |                         |             |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | CHEROKEE, Iowa                       | <b>Accident Number:</b> | MKC88LA061  |
| <b>Date &amp; Time:</b>        | March 15, 1988, 07:15 Local          | <b>Registration:</b>    | N8136R      |
| <b>Aircraft:</b>               | BEECH                      A36       | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         |                                      | <b>Injuries:</b>        | 2 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Personal |                         |             |

## Analysis

THE PLT STATED, THAT SHORTLY AFTER TAKEOFF, THE ENGINE LOST SUBSTANTIAL PWR. AFTERWARDS THERE WAS SMOKE IN THE COCKPIT. THE PIC REVERSED HIS COURSE WITH THE INTENT TO LAND ON THE DEPARTURE ARPT. WHEN HE FELT HE HAD THE LDG FIELD MADE, HE ATTEMPTED TO LOWER THE LDG GEAR. THE RED GEAR UNSAFE LIGHT ILLUMINATED, SO HE ATTEMPTED TO LWR THE GEAR USING THE EMERGENCY CRANK DOWN PROCEDURES. HE FAILED TO GET FULL GEAR EXTENSION BEFORE STRIKING THE TERRAIN SHORT OF THE INTENDED LDG FIELD. POSTFLIGHT INSPECTION REVEALED A BROKEN EXHAUST PIPE FLANGE ON #5 CYLINDER, ALLOWING EXHAUST GAS TO MELT AN ALTERNATOR WIRE, AND REDUCING THE EFFECTIVENESS OF THE TURBOCHARGER ON THE MODIFIED ENGINE INSTALLATION.

## 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(PARTIAL) - MECH FAILURE/MALF  
Phase of Operation: TAKEOFF - INITIAL CLIMB

#### Findings

1. (C) EXHAUST SYSTEM - FAILURE,PARTIAL

2. (F) EXHAUST SYSTEM, TURBOCHARGER - OUTPUT LOW
3. (C) ELECTRICAL SYSTEM, ELECTRIC WIRING - BURNED
4. (F) LANDING GEAR, NORMAL RETRACTION/EXTENSION ASSEMBLY - INOPERATIVE

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

Findings

5. (F) GEAR EXTENSION - NOT ATTAINED

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: LANDING - ROLL

Findings

6. TERRAIN CONDITION - ROUGH/UNEVEN
7. TERRAIN CONDITION - SNOW COVERED

## Factual Information

### Pilot Information

|                                  |   |  |                  |
|----------------------------------|---|--|------------------|
| <b>Certificate:</b>              | Private   | <b>Age:</b>                              | 35, Male         |
| <b>Airplane Rating(s):</b>       | Single-engine land  | <b>Seat Occupied:</b>                    | Left             |
| <b>Other Aircraft Rating(s):</b> | None  | <b>Restraint Used:</b>                   |                  |
| <b>Instrument Rating(s):</b>     | Airplane  | <b>Second Pilot Present:</b>             | No               |
| <b>Instructor Rating(s):</b>     | None  | <b>Toxicology Performed:</b>             | No               |
| <b>Medical Certification:</b>    | Class 3 Valid Medical--no waivers/lim.  | <b>Last FAA Medical Exam:</b>            | December 8, 1987 |
| <b>Occupational Pilot:</b>       | No  | <b>Last Flight Review or Equivalent:</b> |                  |
| <b>Flight Time:</b>              | 605 hours (Total, all aircraft), 87 hours (Total, this make and model), 467 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft) |  |                  |

### Aircraft and Owner/Operator Information

|                                      |                          |                                       |                 |
|--------------------------------------|--------------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | BEECH                    | <b>Registration:</b>                  | N8136R          |
| <b>Model/Series:</b>                 | A36 A36                  | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |                          | <b>Amateur Built:</b>                 |                 |
| <b>Airworthiness Certificate:</b>    | Normal                   | <b>Serial Number:</b>                 | E612            |
| <b>Landing Gear Type:</b>            | Retractable - Tricycle   | <b>Seats:</b>                         | 6               |
| <b>Date/Type of Last Inspection:</b> | Annual                   | <b>Certified Max Gross Wt.:</b>       | 3650 lbs        |
| <b>Time Since Last Inspection:</b>   | 110 Hrs                  | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 3003 Hrs                 | <b>Engine Manufacturer:</b>           | LYCOMING        |
| <b>ELT:</b>                          | Installed, not activated | <b>Engine Model/Series:</b>           | T10-540-J2BD    |
| <b>Registered Owner:</b>             | DGA, INC                 | <b>Rated Power:</b>                   | 350 Horsepower  |
| <b>Operator:</b>                     | DGA INC.                 | <b>Operating Certificate(s) Held:</b> | None            |
| <b>Operator Does Business As:</b>    |                          | <b>Operator Designator Code:</b>      |                 |

## Meteorological Information and Flight Plan

|   |                                  |   |                   |
|---|----------------------------------|---|-------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)                     | <b>Condition of Light:</b>                  | Day               |
| <b>Observation Facility, Elevation:</b> | DSM ,957 ft msl                  | <b>Distance from Accident Site:</b>         | 80 Nautical Miles |
| <b>Observation Time:</b>                | 07:52 Local                      | <b>Direction from Accident Site:</b>        | 120°              |
| <b>Lowest Cloud Condition:</b>          | Clear                            | <b>Visibility</b>                           | 20 miles          |
| <b>Lowest Ceiling:</b>                  | None                             | <b>Visibility (RVR):</b>                    |                   |
| <b>Wind Speed/Gusts:</b>                | 10 knots /                       | <b>Turbulence Type Forecast/Actual:</b>     | /                 |
| <b>Wind Direction:</b>                  | 320°                             | <b>Turbulence Severity Forecast/Actual:</b> | /                 |
| <b>Altimeter Setting:</b>               | 30 inches Hg                     | <b>Temperature/Dew Point:</b>               | -8°C / -12°C      |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |                   |
| <b>Departure Point:</b>                 | CHEROKEE , IA (CKP )             | <b>Type of Flight Plan Filed:</b>           | None              |
| <b>Destination:</b>                     | BEDFORD , IA (Y46 )              | <b>Type of Clearance:</b>                   | None              |
| <b>Departure Time:</b>                  | 07:10 Local                      | <b>Type of Airspace:</b>                    | Class G           |

## Airport Information

|                             |             |                                  |                |
|-----------------------------|-------------|----------------------------------|----------------|
| <b>Airport:</b>             | CKP         | <b>Runway Surface Type:</b>      | Dirt           |
| <b>Airport Elevation:</b>   | 1220 ft msl | <b>Runway Surface Condition:</b> | Rough;Snow     |
| <b>Runway Used:</b>         | 0           | <b>IFR Approach:</b>             | None           |
| <b>Runway Length/Width:</b> | 0 ft / 0 ft | <b>VFR Approach/Landing:</b>     | Forced landing |

## Wreckage and Impact Information

|                            |        |                             |                           |
|----------------------------|--------|-----------------------------|---------------------------|
| <b>Crew Injuries:</b>      | 1 None | <b>Aircraft Damage:</b>     | Substantial               |
| <b>Passenger Injuries:</b> | 1 None | <b>Aircraft Fire:</b>       | None                      |
| <b>Ground Injuries:</b>    | N/A    | <b>Aircraft Explosion:</b>  | None                      |
| <b>Total Injuries:</b>     | 2 None | <b>Latitude, Longitude:</b> | 42.749561,-95.549171(est) |

## Administrative Information

|  |   |
|--|---|
| <b>Investigator In Charge (IIC):</b>     | Hruban, John  |
| <b>Additional Participating Persons:</b> | TIM GRIFFITH; DES MOINES , IA   |
| <b>Original Publish Date:</b>            | March 30, 1989  |
| <b>Last Revision Date:</b>               |   |
| <b>Investigation Class:</b>              | <a href="#">Class</a>   |
| <b>Note:</b>                             |   |
| <b>Investigation Docket:</b>             | <a href="https://data.nts.gov/Docket?ProjectID=34546">https://data.nts.gov/Docket?ProjectID=34546</a> |

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