



# National Transportation Safety Board Aviation Accident Final Report

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|--------------------------------|---------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | Lake Minchumina, AK                   | <b>Accident Number:</b> | ANC01LA081  |
| <b>Date &amp; Time:</b>        | 07/02/2001, 0850 AKD                  | <b>Registration:</b>    | N401LC      |
| <b>Aircraft:</b>               | Lockheed L-382G                       | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         |                                       | <b>Injuries:</b>        | 4 None      |
| <b>Flight Conducted Under:</b> | Part 121: Air Carrier - Non-scheduled |                         |             |

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## Analysis

The crew of the arriving cargo flight flew over the airport to inspect the runway conditions, and subsequently elected to use runway 20, a 4,200 feet long, 90 feet wide, gravel runway. The crew noted that the runway surface had a number of frost-heaves that had developed during the past winter. During the initial landing touchdown, the airplane "skipped" as the main wheels touched on the crest of one of the frost-heaves. The airplane became airborne, floated slightly, touched again about 750 feet beyond the approach end of the runway. During the second landing flare, the main landing gear wheels touched on the downhill side of a second frost-heave, which allowed the tail of the airplane to contact the gravel runway. The captain characterized the second touchdown as within acceptable limits, but with a slightly nose high attitude. A postflight inspection by the crew discovered a 4 feet by 2 feet puncture on the belly of the airplane, just forward of the main cargo door.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight crew's improper recovery from a bounced landing. Factors associated with the accident were the selection of an unsuitable landing area, and a rough/uneven landing surface.

## Findings

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Occurrence #1: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (F) TERRAIN CONDITION - ROUGH/UNEVEN
2. (F) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - FLIGHTCREW
3. (C) RECOVERY FROM BOUNCED LANDING - IMPROPER - FLIGHTCREW

## Factual Information

On July 2, 2001, about 0850 Alaska daylight time, a Lockheed L-382G airplane, N401LC, sustained substantial damage during landing at the Lake Minchumina Airport, Lake Minchumina, Alaska. The airplane was being operated as an instrument (IFR) cross-country cargo flight under Title 14 CFR Part 121, when the accident occurred. The airplane was registered to, and operated by Lynden Air Cargo LLC. The crew of the airplane, consisting of the captain, first officer, flight engineer, and a load master, were not injured. Visual meteorological conditions prevailed, and an IFR flight plan was filed. The flight originated at the Ted Stevens International Airport, Anchorage, Alaska, about 0800.

During a telephone conversation with the National Transportation Safety Board investigator-in-charge on July 2, the director of operations for the operator reported the airport has a gravel runway that is oriented on a 020/200 degree heading. He added that the captain flew over the airport to inspect the runway conditions, and subsequently elected to use runway 20. He said that the runway is 4,200 feet long, 90 feet wide, and that the gravel runway had a number of frost-heaves that have developed during the past winter. The director of operations said that the captain was making an approach to runway 20, and on initial touchdown the airplane "skipped" as the main wheels touched down on the crest of one of the frost-heaves. He said that the airplane became airborne, floated slightly, and then touched down about 750 feet beyond the approach end of the runway. During the second landing flare, the main landing gear wheels touched on the downhill side of a second frost-heave, which allowed the tail of the airplane to contact the gravel runway. The captain characterized the second touchdown as within acceptable limits, but with a slightly nose high attitude. After touchdown, the captain lowered the nose of the airplane, brought the engines into reverse, and completed the landing. After landing rollout, the airplane was taxied to parking. A postflight inspection by the crew discovered a 4 feet by 2 feet puncture on the belly of the airplane, just forward of the main cargo door.

## Pilot Information

|                                  |  |  |                            |
|----------------------------------|--|--|----------------------------|
| <b>Certificate:</b>              | Airline Transport  | <b>Age:</b>                              | 37, Male                   |
| <b>Airplane Rating(s):</b>       | Multi-engine Land; Single-engine Land; Single-engine Sea   | <b>Seat Occupied:</b>                    | Left                       |
| <b>Other Aircraft Rating(s):</b> | None   | <b>Restraint Used:</b>                   | Seatbelt, Shoulder harness |
| <b>Instrument Rating(s):</b>     | Airplane   | <b>Second Pilot Present:</b>             | Yes                        |
| <b>Instructor Rating(s):</b>     | None   | <b>Toxicology Performed:</b>             | No                         |
| <b>Medical Certification:</b>    | Class 1 Valid Medical--no waivers/lim.   | <b>Last Medical Exam:</b>                | 01/31/2001                 |
| <b>Occupational Pilot:</b>       |  | <b>Last Flight Review or Equivalent:</b> | 01/31/2001                 |
| <b>Flight Time:</b>              | 15000 hours (Total, all aircraft), 2200 hours (Total, this make and model), 11000 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 70 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft) |  |                            |

## Co-Pilot Information

|                                  |  |  |     |
|----------------------------------|--|--|-----|
| <b>Certificate:</b>              |  | <b>Age:</b>                              |     |
| <b>Airplane Rating(s):</b>       |  | <b>Seat Occupied:</b>                    |     |
| <b>Other Aircraft Rating(s):</b> |  | <b>Restraint Used:</b>                   |     |
| <b>Instrument Rating(s):</b>     |  | <b>Second Pilot Present:</b>             | Yes |
| <b>Instructor Rating(s):</b>     |  | <b>Toxicology Performed:</b>             |     |
| <b>Medical Certification:</b>    |  | <b>Last Medical Exam:</b>                |     |
| <b>Occupational Pilot:</b>       |  | <b>Last Flight Review or Equivalent:</b> |     |
| <b>Flight Time:</b>              |  |  |     |

## Flight Engineer Information

|                                  |  |  |     |
|----------------------------------|--|--|-----|
| <b>Certificate:</b>              |  | <b>Age:</b>                              |     |
| <b>Airplane Rating(s):</b>       |  | <b>Seat Occupied:</b>                    |     |
| <b>Other Aircraft Rating(s):</b> |  | <b>Restraint Used:</b>                   |     |
| <b>Instrument Rating(s):</b>     |  | <b>Second Pilot Present:</b>             | Yes |
| <b>Instructor Rating(s):</b>     |  | <b>Toxicology Performed:</b>             |     |
| <b>Medical Certification:</b>    |  | <b>Last Medical Exam:</b>                |     |
| <b>Occupational Pilot:</b>       |  | <b>Last Flight Review or Equivalent:</b> |     |
| <b>Flight Time:</b>              |  |  |     |

## Other Flight Crew Information

|                           |                                   |
|---------------------------|-----------------------------------|
| Certificate:              | Age:                              |
| Airplane Rating(s):       | Seat Occupied:                    |
| Other Aircraft Rating(s): | Restraint Used:                   |
| Instrument Rating(s):     | Second Pilot Present: Yes         |
| Instructor Rating(s):     | Toxicology Performed:             |
| Medical Certification:    | Last Medical Exam:                |
| Occupational Pilot:       | Last Flight Review or Equivalent: |
| Flight Time:              |                                   |

## Aircraft and Owner/Operator Information

|                               |                                      |                                    |                                  |
|-------------------------------|--------------------------------------|------------------------------------|----------------------------------|
| Aircraft Manufacturer:        | Lockheed                             | Registration:                      | N401LC                           |
| Model/Series:                 | L-382G                               | Aircraft Category:                 | Airplane                         |
| Year of Manufacture:          |                                      | Amateur Built:                     | No                               |
| Airworthiness Certificate:    | Normal                               | Serial Number:                     | 4606                             |
| Landing Gear Type:            | Retractable - Tricycle               | Seats:                             | 7                                |
| Date/Type of Last Inspection: | 04/10/2001, Continuous Airworthiness | Certified Max Gross Wt.:           | 155800 lbs                       |
| Time Since Last Inspection:   | 285.7 Hours                          | Engines:                           | 4 Turbo Prop                     |
| Airframe Total Time:          | 31652.8 Hours                        | Engine Manufacturer:               | Allison                          |
| ELT:                          | Installed, not activated             | Engine Model/Series:               | 501-D22A                         |
| Registered Owner:             | Lynden Air Cargo LLC                 | Rated Power:                       | 4368 hp                          |
| Operator:                     | Lynden Air Cargo LLC                 | Air Carrier Operating Certificate: | Flag carrier (121); Supplemental |
| Operator Does Business As:    |                                      | Operator Designator Code:          | LR7A                             |

## Meteorological Information and Flight Plan

|                                  |                           |                               |              |
|----------------------------------|---------------------------|-------------------------------|--------------|
| Conditions at Accident Site:     | Visual Conditions         | Condition of Light:           | Day          |
| Observation Facility, Elevation: |                           | Observation Time:             |              |
| Distance from Accident Site:     |                           | Direction from Accident Site: |              |
| Lowest Cloud Condition:          | Clear                     | Temperature/Dew Point:        | 13° C / 8° C |
| Lowest Ceiling:                  | None                      | Visibility                    | 10 Miles     |
| Wind Speed/Gusts, Direction:     | Calm                      | Visibility (RVR):             |              |
| Altimeter Setting:               | 30.15 inches Hg           | Visibility (RVV):             |              |
| Precipitation and Obscuration:   |                           |                               |              |
| Departure Point:                 | Anchorage, AK (ANC)       | Type of Flight Plan Filed:    | IFR          |
| Destination:                     | Lake Minchumina, AK (MHM) | Type of Clearance:            | IFR          |
| Departure Time:                  | 0800 ADT                  | Type of Airspace:             | Class D      |

## Airport Information

|                      |                  |                           |           |
|----------------------|------------------|---------------------------|-----------|
| Airport:             | MINCHUMINA (MHM) | Runway Surface Type:      | Gravel    |
| Airport Elevation:   |                  | Runway Surface Condition: | Dry       |
| Runway Used:         | 20               | IFR Approach:             | None      |
| Runway Length/Width: | 4200 ft / 90 ft  | VFR Approach/Landing:     | Full Stop |

## Wreckage and Impact Information

|                     |        |                      |                        |
|---------------------|--------|----------------------|------------------------|
| Crew Injuries:      | 4 None | Aircraft Damage:     | Substantial            |
| Passenger Injuries: | N/A    | Aircraft Fire:       | None                   |
| Ground Injuries:    | N/A    | Aircraft Explosion:  | None                   |
| Total Injuries:     | 4 None | Latitude, Longitude: | 63.866667, -152.301111 |

## Administrative Information

|                                   |  |               |            |
|-----------------------------------|--|---------------|------------|
| Investigator In Charge (IIC):     | Clinton O Johnson  | Adopted Date: | 06/03/2002 |
| Additional Participating Persons: | Clint F Wease; Federal Aviation Administration; Anchorage, AK  |               |            |
| 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:pubinquiry@ntsb.gov">pubinquiry@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> . |               |            |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.