

National Transportation Safety Board Aviation Accident Final Report

Location: CARIBBEAN SEA, CB Accident Number: MIA90LA153

Date & Time: 07/14/1990, 1627 EDT Registration: N4465F

Aircraft: LOCKHEED L-188A Aircraft Damage: Substantial

Defining Event: Injuries: 3 None

Flight Conducted Under: Part 121: Air Carrier - Non-scheduled

Analysis

WHILE IN CLIMB AT 18,000 FT THE CRW HEARD AND EXPLOSION AND LOST NOS 3 AND 4 ENGINES. THEY VISUALLY NOTED THAT THE PROPELLERS AND PORTIONS OF THE GEARBOXES WERE ALSO MISSING. THEY THEN SHUT DOWN NO 2 ENGINE DUE TO ERRATIC INDICATIONS. THEY DECLARED AN EMERGENCY AND LANDED. THE GEAR BOXES AND PROPELLERS WERE NOT RECOVERED FROM THE CARIBBEAN SEA.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE INFLIGHT LOSS OF THE NOS 3 AND 4 PROPELLERS AND GEARBOXES FOR UNDETERMINED REASONS. THE FAILED COMPONENTS WERE NOT RECOVERED FROM THE CARIBBEAN SEA.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: CLIMB - TO CRUISE

Findings

- 1. 2 ENGINES FAILURE, TOTAL
- 2. (C) PROPELLER SYSTEM/ACCESSORIES SEPARATION
- 3. (C) REDUCTION GEAR ASSY SEPARATION
- 4. (C) REASON FOR OCCURRENCE UNDETERMINED

Factual Information

Pilot Information

| Certificate: | Airline Transport | Age: | 49, Male |
|---------------------------|--|-----------------------------------|----------------------------|
| Airplane Rating(s): | Multi-engine Land; Single-engine Land; Single-engine Sea | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | Class 1 Valid Medicalw/waivers/lim. | Last FAA Medical Exam: | 06/05/1990 |
| Occupational Pilot: | | Last Flight Review or Equivalent: | |
| Flight Time: | 6060 hours (Total, all aircraft), 3150 hours (Total, this make and model), 3500 hours (Pilot In Command, all aircraft), 162 hours (Last 90 days, all aircraft), 58 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| Aircraft Make: | LOCKHEED | Registration: | N4465F |
|-------------------------------|---|-----------------------------------|--------------|
| Model/Series: | L-188A L-188A | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Transport | Serial Number: | 1096 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | |
| Date/Type of Last Inspection: | 12/11/1989, Continuous Airworthiness | Certified Max Gross Wt.: | 116000 lbs |
| Time Since Last Inspection: | 884 Hours | Engines: | 4 Turbo Prop |
| Airframe Total Time: | 31829 Hours | Engine Manufacturer: | ALLISON |
| ELT: | Installed, not activated | Engine Model/Series: | 501D-13 |
| Registered Owner: | TPI INTERNATIONAL AIRWAYS | Rated Power: | 4000 hp |
| Operator: | TPI INTERNATIONAL AIRLINES | Operating Certificate(s) Held: | Air Cargo |
| Operator Does Business As: | | Operator Designator Code: | TPIA |

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Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
|----------------------------------|-------------------------|--------------------------------------|-------------------|
| Observation Facility, Elevation: | TNCA, 11 ft msl | Distance from Accident Site: | 22 Nautical Miles |
| Observation Time: | 1555 EDT | Direction from Accident Site: | 80° |
| Lowest Cloud Condition: | Scattered / 5000 ft agl | Visibility | 7 Miles |
| Lowest Ceiling: | None / 0 ft agl | Visibility (RVR): | 0 ft |
| Wind Speed/Gusts: | 15 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 90° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29 inches Hg | Temperature/Dew Point: | 28°C / 16°C |
| Precipitation and Obscuration: | | | |
| Departure Point: | ORANJESTAD, OF (TNCC) | Type of Flight Plan Filed: | IFR |
| Destination: | PANAMA CITY, OF (MPTO) | Type of Clearance: | IFR |
| Departure Time: | 1600 EDT | Type of Airspace: | |
| | | | |

Wreckage and Impact Information

| Crew Injuries: | 3 None | Aircraft Damage: | Substantial |
|---------------------|--------|----------------------|-------------|
| Crew injuries. | 3 None | All Craft Dallage. | Substantiat |
| Passenger Injuries: | N/A | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 3 None | Latitude, Longitude: | |

Administrative Information

| Investigator In Charge (IIC): | ANDREW | A ALSTON | Report Date: | 12/30/1992 |
|-----------------------------------|--|----------|--------------|------------|
| 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 publing@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/ . | | | |

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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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available here.

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