



Aviation Investigation Final Report

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| Location: | MOORE HAVEN, Florida | Accident Number: | MIA99LA212 |
| Date & Time: | August 2, 1999, 12:30 Local | Registration: | N15585 |
| Aircraft: | Air Tractor AT-401 | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 None |
| Flight Conducted Under: | Part 137: Agricultural | | |

Analysis

While taking off with a temperature of 103 degrees F., the aircraft was not accelerating enough for a proper takeoff and the pilot initiated dumping of the chemical load. The aircraft lifted off, collided with brush at the end of the runway, and then settled into a second area of brush, where it came to rest. The pilot reported he had no mechanical difficulties with the aircraft.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot exceeding the gross takeoff weight which reduced the climb capability and subsequent in-flight collision with terrain. Contributing to the accident was the high temperature and the pilot's failure to use aircraft performance data for the weather conditions.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF

Findings

1. WEATHER CONDITION - TEMPERATURE,HIGH
2. (C) PERFORMANCE DATA - NOT USED - PILOT IN COMMAND
3. (C) AIRCRAFT WEIGHT AND BALANCE - EXCEEDED - PILOT IN COMMAND
4. LIFT-OFF - DELAYED

- 5. CLIMB - RESTRICTED
- 6. TERRAIN CONDITION - HIGH VEGETATION

Factual Information

On August 2, 1999, about 1230 eastern daylight time, an Air Tractor AT-401, N15585, registered to and operated by Thomas R. Summersill, Inc., crashed during takeoff while on a Title 14 CFR Part 137 aerial application flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft received substantial damage and the commercial-rated pilot was not injured. The flight was originating at the time of the accident.

The pilot stated that he had flown several other flights that morning. The temperature was rising and he had been lowering the chemical loads from the maximum of 2,500 pounds, due to the rising temperature. At 1230, with the temperature at the landing strip at 103 degrees F, he attempted takeoff. About 3/4 of the way down the runway, the aircraft was not accelerating and he attempted to dump the chemical load to reduce weight. The aircraft lifted off the runway and collided with 15-to 20-foot brush, traveled further, and settled into a second area of brush, where it came to rest. He stated he did not have any mechanical difficulties with the aircraft.

Pilot Information

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| Certificate: | Commercial | Age: | 25, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Front |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 2 Valid Medical--no waivers/lim. | Last FAA Medical Exam: | January 6, 1999 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | |
| Flight Time: | 3936 hours (Total, all aircraft), 2405 hours (Total, this make and model), 3886 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 75 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|-------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Air Tractor | Registration: | N15585 |
| Model/Series: | AT-401 AT-401 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Restricted (Special) | Serial Number: | 401-0888 |
| Landing Gear Type: | Tailwheel | Seats: | 1 |
| Date/Type of Last Inspection: | March 1, 1999 Annual | Certified Max Gross Wt.: | 6000 lbs |
| Time Since Last Inspection: | 295 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 3573 Hrs | Engine Manufacturer: | P&W |
| ELT: | Not installed | Engine Model/Series: | R-1340-AN1 |
| Registered Owner: | THOMAS R. SUMMERSILL, INC. | Rated Power: | 600 Horsepower |
| Operator: | | Operating Certificate(s) Held: | |
| Operator Does Business As: | | Operator Designator Code: | KVYG |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | FMY ,18 ft msl | Distance from Accident Site: | 45 Nautical Miles |
| Observation Time: | 12:53 Local | Direction from Accident Site: | 260° |
| Lowest Cloud Condition: | Scattered / 3500 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 8 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 300° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29 inches Hg | Temperature/Dew Point: | 33°C / 24°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 12:30 Local | Type of Airspace: | Class E |

Airport Information

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|-----------------------------|-----------------|----------------------------------|------------|
| Airport: | PERRY FARMS | Runway Surface Type: | Grass/turf |
| Airport Elevation: | 50 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 18 | IFR Approach: | |
| Runway Length/Width: | 2500 ft / 60 ft | VFR Approach/Landing: | |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|---------------------------|
| 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: | 26.829317,-81.090065(est) |

Administrative Information

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| Investigator In Charge (IIC): | Kennedy, Jeffrey |
| Additional Participating Persons: | RAUL DIAZ; FORT LAUDERDALE, FL |
| Original Publish Date: | September 7, 2000 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=46957 |

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).