



Aviation Investigation Final Report

Location:	HIGHGATE, Vermont	Accident Number:	NYC97LA126
Date & Time:	June 23, 1997, 12:00 Local	Registration:	N8321Y
Aircraft:	Piper PA-30	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot loaded 100 unsecured paper bundles in the airplane that had a useful load of 1,100 pounds. During the initial takeoff climb, the airplane rotated normally, then pitched up excessively. The pilot reduced power and lowered the nose to prevent a stall. He then performed a forced landing into trees. Examination of the wreckage did not disclose evidence of mechanical malfunctions, nor did the pilot report any. The pilot stated that he was unaware of the cargo invoice that listed the cargo weight to be 1,800 pounds. The cargo was weighed post accident, and was determined to be 1,450 pounds. The airplane had a useful load of 1,100 pounds. The pilot did not report that he secured the newspaper inserts after he loaded them, and there was no evidence during the postcrash examination that they were secured.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to secure the cargo. A factor was the pilot's failure to perform weight and balance calculations.

Findings

Occurrence #1: CARGO SHIFT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) SECURITY OF CARGO - NOT PERFORMED - PILOT IN COMMAND

2. (F) AIRCRAFT WEIGHT AND BALANCE - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

3. STALL/MUSH - INADVERTENT

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. OBJECT - TREE(S)

Factual Information

On June 23, 1997, about 1200 eastern daylight time, a Piper PA-30, N8321Y, was destroyed when it collided with trees during an emergency landing on the initial climb after takeoff from the Franklin County State Airport, Highgate, Vermont. The certificated private pilot received serious injuries. No flight plan was filed for the flight destined for Mount Snow Airport (4V8), West Dover, Vermont. Visual meteorological conditions prevailed for the personal flight conducted under 14 CFR Part 91.

The pilot reported that he obtained bundles of newspaper inserts and loaded them in the airplane prior to departure. He loaded the bundles in a location for the best center of gravity and used the airplane's tires to determine if the airplane was safely loaded. The pilot then departed runway 01, a 3,000 foot long, 60 foot wide, dry asphalt runway, destined for 4V8. During the initial takeoff climb, the airplane pitched up excessively. The pilot then reduced engine power to idle on both engines in an attempt to lower the nose and prevent a stall. He then performed an emergency landing off the departure end of the runway, during which the airplane impacted trees.

Several witness reported that they observed the airplane in a normal pitch attitude during the initial takeoff climb, until the airplane approached the departure end of the runway. As the airplane approached the departure end of the runway, the pitch attitude increased excessively to an almost vertical attitude. A reduction of engine power was heard followed by the descent and impact with trees.

Examination of the wreckage by the Federal Aviation Administration (FAA) Inspector revealed that the airplane's rear passenger seats were removed and contained 100 bundles of newspaper inserts. A review of the invoice receipt for the newspaper inserts revealed that there were 100 sheets in each bundle, and the total weight was 1,800 pounds. The actual weight of the bundles were taken by the FAA Inspector and determined to be a total of 1,450 pounds. There was no evidence of mechanical malfunctions during the examination, nor did the pilot report any. The pilot also reported that he did not know the exact weight of the bundles, and was unaware that the invoice receipt for the bundles included the weight of 1,800 pounds. He was also aware that the airplane had a useful load of 1,100 pounds. The pilot did not report that he secured the newspaper inserts after he loaded them, and there was no evidence during the examination that they were secured.

Pilot Information

Certificate:	Private	Age:	27, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
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 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 22, 1997
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	600 hours (Total, all aircraft), 120 hours (Total, this make and model), 320 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8321Y
Model/Series:	PA-30 PA-30	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	30-1461
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, activated	Engine Model/Series:	IO-360
Registered Owner:	SRQ	Rated Power:	160 Horsepower
Operator:	ROBERT NORTH III	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	BTV ,334 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	12:06 Local	Direction from Accident Site:	200°
Lowest Cloud Condition:	Scattered / 6000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(FSO)	Type of Flight Plan Filed:	None
Destination:	WEST DOVER , VT (4V8)	Type of Clearance:	None
Departure Time:	12:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	FRANKLIN COUNTY STATE FSO	Runway Surface Type:	Asphalt
Airport Elevation:	228 ft msl	Runway Surface Condition:	Dry
Runway Used:	1	IFR Approach:	None
Runway Length/Width:	3000 ft / 60 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Kukla, Randi-jean
Additional Participating Persons:	TED M DOMIN; PORTLAND , ME
Original Publish Date:	June 22, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=39385

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](#).