



National Transportation Safety Board Aviation Accident Final Report

Location:	DICKSON, TN	Accident Number:	ATL86FA147
Date & Time:	05/29/1986, 0350 CDT	Registration:	N260A
Aircraft:	Smith, Ted Aerostar AEROSTAR 600	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

THE ACFT CONTACTED ELECTRICAL WIRES AND TREES SHORTLY AFTER TAKEOFF. THE ACFT THEN DESCENDED TO IMPACT WITH THE TERRAIN. EXAMINATION OF THE WRECKAGE REVEALED THE ELEVATOR TRIM ACTUATOR ROD WAS EXTENDED 2.5 INCHES WHICH CORRELATES WITH A FULL NOSE DOWN SETTING. FURTHER EXAMINATION SHOWED THE BUSS WIRE FOR THE ACTUATOR RETRACT SWITCH WAS DISCONNECTED AT THE RETRACT SWITCH POST. SPLATTERED COPPER WAS FOUND ON THE RETRACT SWITCH INDICATING THE BUSS WIRE HAD BEEN SUBJECTED TO HIGH AMPERAGE. THE LIMITATIONS SECTION OF THE PILOT OPERATING HANDBOOK FOR THIS ACFT DOES NOT STATE THAT TAKEOFF IS PROHIBITED WITH INOPERATIVE PITCH TRIM.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. WEATHER CONDITION - OBSCURATION
2. WEATHER CONDITION - FOG
3. LIGHT CONDITION - NIGHT
4. (C) FLT CONTROL SYST,ELEVATOR TRIM/TAB CONTROL - FAILURE,TOTAL
5. (C) ELECTRICAL SYSTEM,ELECTRIC WIRING - DISCONNECTED
6. (C) ELECTRICAL SYSTEM,ELECTRIC WIRING - OVERTEMPERATURE
7. (C) TRIM SETTING - NOT PERFORMED - PILOT IN COMMAND
8. (F) IMPROPER TRANSITION/UPGRADE TRAINING - PILOT IN COMMAND
9. (C) CLIMB - NOT ATTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

10. OBJECT - TREE(S)
11. OBJECT - WIRE,TRANSMISSION

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	40, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	05/31/1985
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1022 hours (Total, all aircraft), 6 hours (Total, this make and model), 846 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Smith, Ted Aerostar	Registration:	N260A
Model/Series:	AEROSTAR 600 AEROSTAR 6	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	60-496-161
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	11/02/1985, Annual	Certified Max Gross Wt.:	5500 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	1602 Hours	Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	IO-540-K1J5
Registered Owner:	JOHN K. GRAY	Rated Power:	290 hp
Operator:	JOHN K. GRAY	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	BNA, 599 ft msl	Distance from Accident Site:	40 Nautical Miles
Observation Time:	0418 CDT	Direction from Accident Site:	90°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	4 Miles
Lowest Ceiling:	Overcast / 500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	19° C / 19° C
Precipitation and Obscuration:			
Departure Point:	DICKSON, TN (M02)	Type of Flight Plan Filed:	IFR
Destination:	PALM BEACH, FL (PBI)	Type of Clearance:	None
Departure Time:	0400 EDT	Type of Airspace:	Class G

Airport Information

Airport:	DICKSON MUNICIPAL (M02)	Runway Surface Type:	Asphalt
Airport Elevation:	891 ft	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	2 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	PRESTON E HICKS	Report Date:	
Additional Participating Persons:	WILLIAM S WHITMORE; NASHVILLE, TN RUSSELL L MCKNIGHT; VERO BEACH, FL PATTY CLIFTON; WICHITA, KS		
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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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](#).