Aviation Investigation Final Report

Location:	LOUISVILLE, Kentucky	**Accident Number:**	NYC98LA181
Date & Time:	September 5, 1998, 16:10 Local	**Registration:**	N5245G
Aircraft:	Cessna 305A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

The pilot was returning to land from his third banner flight of the day, and was towing a 25x75 foot banner. He made two attempts to release his banner, but both attempts failed, so he elected to land the airplane with the banner in tow. The pilot made a straight-in approach for the 3,539 foot long runway 14, and in an attempt to have the airplane touch down before the banner, he executed the approach steeper and faster than normal, but not as fast as he would have liked, because he wanted to get the airplane stopped before reaching an intersecting runway. By stopping before the intersecting runway, the pilot would prevent blocking it while he cleared the banner and airplane from the landing runway. When the airplane was over the runway and approximately 20 feet above the ground, the banner became snagged. The pilot applied full power, but the airplane stalled, and impacted the runway.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper inflight decision, and his failure to maintain adequate airspeed which resulted in a stall.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: APPROACH

Findings

1. (C) SIGN TOWING EQUIPMENT - INOPERATIVE
2. SIGN TOWING EQUIPMENT - SNAGGED
3. (C) IN-FLIGHT PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
4. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
5. STALL

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: APPROACH

Findings
6. TERRAIN CONDITION - RUNWAY

Factual Information

On September 5, 1998, about 1610 eastern daylight time, a Cessna 305A, N5245G, was substantially damaged during landing at Bowman Field Airport (LOU), Louisville, Kentucky. The certificated commercial pilot was not injured. Visual meteorological conditions prevailed, and no flight plan had been filed for the commercial banner tow flight conducted under 14 CFR Part 91.

The pilot stated that he was returning to land from his third banner flight of the day, and was towing a 25x75 foot banner. He made two attempts to release his banner, but both attempts failed.

Since the pilot could not release the banner, he elected to land the airplane with the banner in tow, something he had done about a dozen times before. He coordinated with the tower, and after about 10 minutes was cleared to land on Runway 14. The active was Runway 6, but the winds were negligible and the pilot wanted to avoid occupying the primary runway.

The pilot stated that he made a straight in approach for Runway 14, and in an attempt to have the airplane touchdown before the banner, he made the approach steeper and faster than "normal", but not as fast as he would have liked. He maintained a slightly slower approach speed because he wanted to get the airplane stopped before reaching the intersection of Runway 14 and Runway 6. His goal was to avoid blocking Runway 6 because it was the primary runway, and he knew it would take several minutes to clear the banner and airplane from Runway 14 after coming to a stop.

When the airplane was over the runway and approximately 20 feet above the ground, the pilot felt the banner snag and the subsequent stretching of the nylon tow rope. Immediately upon feeling the deceleration, the pilot applied full power, but the airplane stalled and nosed down. When the airplane impacted the runway, the propeller made momentary contact with the ground and the right landing gear collapsed. The airplane bounced back into the air briefly then settled onto the runway. After settling back onto the runway, the airplane skidded 30-50 feet before it came to rest with its engine still running.

According to the pilot, banner attached landings require a steeper and faster approach then normal to prevent the banner from becoming snagged while the airplane is still airborne. In the past, when the pilot conducted banner attached landings, he thought he was able to get the airplane on the ground prior to the banner. After the accident he was informed by a witness that on several occasions, during past banner landings, the banner made ground contact first.

Pilot Information

Certificate:	Commercial	**Age:**	65,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	Balloon	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	February 3, 1998
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	4975 hours (Total, all aircraft), 1112 hours (Total, this make and model), 2975 hours (Pilot In Command, all aircraft), 185 hours (Last 90 days, all aircraft), 75 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N5245G
Model/Series:	305A 305A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	December 2, 1997 Annual	**Certified Max Gross Wt.:**	2100 lbs
Time Since Last Inspection:	317 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	8274 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-470-11B
Registered Owner:	NICHOLAS SAUM	**Rated Power:**	213 Horsepower
Operator:		**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:	SDF ,477 ft msl	**Distance from Accident Site:**	7 Nautical Miles
Observation Time:	13:56 Local	**Direction from Accident Site:**	227°
Lowest Cloud Condition:	Scattered / 9000 ft AGL	**Visibility**	8 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	290°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	33°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(LOU)	**Type of Flight Plan Filed:**	None
Destination:	(LOU)	**Type of Clearance:**	None
Departure Time:	14:00 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	BOWMAN FIELD LOU	**Runway Surface Type:**	Asphalt
Airport Elevation:	546 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	14	**IFR Approach:**	None
Runway Length/Width:	3539 ft / 80 ft	**VFR Approach/Landing:**	Full stop;Straight-in

Wreckage and Impact Information

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:**	

Administrative Information

Investigator In Charge (IIC):	Muzio, David
Additional Participating Persons:	MAURIE DEMING; LOUISVILLE , KY
Original Publish Date:	September 28, 1999
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=43947