



National Transportation Safety Board Aviation Accident Final Report

Location:	CAIRO, GA	Accident Number:	ATL99LA121
Date & Time:	09/01/1999, 0845 EDT	Registration:	N8965Q
Aircraft:	Aero Commander S2R	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

Shortly after liftoff from the runway, the engine backfired and lost power. An eyewitness at the airport reported seeing black smoke coming from the airplane during the attempted takeoff. The pilot turned right and selected a field for the emergency landing. After clearing a nearby pond, the pilot dumped the load of chemicals, and landed in a field about 300 yards beyond the pond. The examination of the airplane failed to disclose a mechanical problem. During the examination of the engine, fuel was recovered from the fuel system. Examination of the carburetor also failed to disclose a mechanical malfunction or component failure. A review of the weather data disclosed that the temperature was 68 degrees, and the dew point was 66 degrees. According to the Icing Probability Curves, conditions were favorable for the formation of carburetor ice.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power for undetermined reasons. Factors were weather conditions favorable for the formation of carburetor ice.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED
2. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Factual Information

On September 1, 1999, at 0845 eastern daylight time, an Aero Commander S2R, N8965Q, collided with the ground during an attempted forced landing in a field near Cairo-Grady Municipal Airport in Cairo, Georgia. The aerial application flight was operated under the provisions of Title 14 CFR Part 137 with no flight plan filed. Visual weather conditions prevailed at the time of the accident. The airplane sustained substantial damage, and the commercial pilot was not injured. The flight departed Cairo, Georgia, at 0844.

According to the pilot, shortly after liftoff from runway 12 at the Cairo-Grady Municipal Airport, the engine backfired and lost power. An eyewitness at the airport reported seeing black smoke coming from the airplane during the attempted takeoff. The pilot turned right and selected a field for the emergency landing. After clearing a nearby pond, the pilot dumped the load of chemicals, and landed in a field about 3000 yards beyond the pond. The pilot reported that during the emergency landing, the landing gear collapsed and the right forward wing spar sustained damage.

The examination of the airplane failed to disclose a mechanical problem. During the examination of the engine, fuel was recovered from the fuel system. Examination of the carburetor also failed to disclose a mechanical malfunction or component failure. A review of the weather data disclosed that the temperature was 68 degrees, and the dew point was 66 degrees. According to the Icing Probability Curves, conditions were favorable for the formation of carburetor ice (see attached icing probability curves).

Pilot Information

Certificate:	Commercial	Age:	48, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
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:	08/31/1999
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	12000 hours (Total, all aircraft), 2100 hours (Total, this make and model), 225 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aero Commander	Registration:	N8965Q
Model/Series:	S2R S2R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	1635R
Landing Gear Type:		Seats:	1
Date/Type of Last Inspection:	06/08/1999, Annual	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	8137 Hours	Engine Manufacturer:	P&W
ELT:		Engine Model/Series:	R-1340-S3H1-G
Registered Owner:	PRINCE FLYING SERVICE INC.,	Rated Power:	600 hp
Operator:	PRINCE FLYING SERVICE INC.,	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	TLH, 82 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	0830 EDT	Direction from Accident Site:	350°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	20° C / 19° C
Precipitation and Obscuration:			
Departure Point:	(70J)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0844 EDT	Type of Airspace:	Class G

Airport Information

Airport:	CAIRO-GRADY MUNICIPAL (70J)	Runway Surface Type:	Asphalt
Airport Elevation:	264 ft	Runway Surface Condition:	Dry
Runway Used:	30	IFR Approach:	None
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	PHILLIP POWELL	Report Date:	11/30/2000
Additional Participating Persons:	MARK L LAUGHRIDGE; COLLEGE PARK, GA		
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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