Aviation Investigation Final Report

Location:	BURBANK, California	**Accident Number:**	LAX97LA181
Date & Time:	May 12, 1997, 06:30 Local	**Registration:**	N3609Q
Aircraft:	Piper PA-32R-300	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The upper engine cowling separated from the nose section during flight and lodged on the horizontal stabilizer. The cowling remained on the stabilizer until after landing and then fell off on the runway during the rollout. Postflight examination of portions of the upper cowl, which contained three fasteners, did not disclose any damage or excessive wear to the fasteners. However, the two front alignment pins that attach to the lower cowl were missing.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: improperly secured upper cowl fasteners by unknown person(s).

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CLIMB

Findings
1. (C) COOLING SYSTEM,COWLING - UNLATCHED
2. COOLING SYSTEM,COWLING - SEPARATION

Factual Information

On May 12, 1997, at 0630 hours Pacific daylight time, a Piper PA-32R-300, N3609Q, was substantially damaged when the upper engine cowling came loose, separated from the nose section, and lodged on the horizontal stabilizer. The cowling remained on the stabilizer until after landing and then fell off onto the runway during the landing rollout. The solo commercial pilot was not injured. The flight departed Burbank Airport, Burbank, California, for an on-demand air taxi cargo flight to Mammoth Lakes, California, with intermediate stops planned at Lancaster and Inyokern. Instrument meteorological conditions prevailed and an IFR flight plan was filed.

According to the aircraft maintenance records, this was the first flight after the aircraft underwent a 50-hour routine inspection during which the top cowl was removed and then reinstalled. The last inspection that specifically requires the cowling and its fasteners to be inspected for serviceability was accomplished on January 28, 1997. The aircraft had been flown 134.7 hours since that date. The aircraft had a total time 6,711 hours when it departed on May 12, 1997.

The Federal Aviation Administration inspector stated that, although only three cowl fasteners could be found, none of them appeared to be damaged or excessively worn. He also stated that the two front alignment pins that attach to the lower cowl were missing.

Pilot Information

Certificate:	Commercial	**Age:**	26,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 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	July 8, 1996
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	1350 hours (Total, all aircraft), 70 hours (Total, this make and model), 300 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 70 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N3609Q
Model/Series:	PA-32R-300 PA-32R-300	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	32R-7780319
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	May 6, 1997 AAIP	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:	1 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5366 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	IO-540-KIG5D
Registered Owner:	AMERIFLIGHT, INC.	**Rated Power:**	300 Horsepower
Operator:	MARTIJN BAKKER	**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:		**Operator Designator Code:**	AMF

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KBU ,775 ft msl	**Distance from Accident Site:**	4 Nautical Miles
Observation Time:	06:00 Local	**Direction from Accident Site:**	15°
Lowest Cloud Condition:	Scattered / 800 ft AGL	**Visibility**	2.5 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	16°C / 15°C
Precipitation and Obscuration:	N/A - None - Haze		
Departure Point:	, CA (BBK)	**Type of Flight Plan Filed:**	IFR
Destination:	LANCASTER , CA (WJF)	**Type of Clearance:**	IFR
Departure Time:	06:30 Local	**Type of Airspace:**	Class C

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Precautionary landing

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):	Armstrong, Weldon
Additional Participating Persons:	BRIAN ASHTON; VAN NUYS , CA
Original Publish Date:	May 4, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=29788