



Aviation Investigation Final Report

Location:	HICKORY, North Carolina	Accident Number:	ATL84LA215
Date & Time:	July 1, 1984, 14:43 Local	Registration:	N4886T
Aircraft:	PIPER PA-34-200	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

ACFT LANDED WITH THE NOSE GEAR RETRACTED. EXAMINATION REVEALED THAT THE NOSE GEAR WAS HUNG UP IN THE WHEEL WELL BECAUSE AN AN4-12 BOLT, WHICH SECURED THE NOSE GEAR CENTERING SPRING ASS'Y, WAS HUNG UP IN THE GEAR DOOR LINKAGE. AN ANNUAL INSPECTION WAS COMPLETED 20 HRS PREVIOUS TO THE ACCIDENT AT WHICH TIME THE BOLT & BUSHINGS ON THE SHIMMY DAMPENER WERE REPLACED. THE PA-34 MAINT MANUAL INDICATES THAT THE CORRECT BOLT, A AN24-20A, SHOULD BE INSTALLED WITH THE BOLT HEAD DOWN & WITH A MS20364-428C LOCK NUT. THE BOLT THAT HUNG UP WAS INSTALLED WITH THE BOLT HEAD UP & WAS SECURED BY A CASTLE NUT & COTTER KEY. PIPER SERVICE LETTER 852, DATED 9/14/78, ADDRESSED THE POTENTIAL IMPROPER INSTALLATION OF THE BOLT & ANNOUNCED THE AVAILABILITY OF A PLACARD TO REMIND MECHANICS OF THE REQUIRED METHOD OF INSTALLATION. THE SERVICE LETTER NOTES THAT WHEN THE BOLT IS INSTALLED INCORRECTLY, NOSE GEAR OPERATION CAN BE RESTRICTED IN THE GEAR UP POSITION. THE NON-MANDATORY SERVICE LETTER HAD NOT BEEN COMPLIED WITH IN N4886T.

Probable Cause and Findings

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

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: APPROACH

Findings

1. (C) LANDING GEAR,NOSE GEAR - IMPROPER
2. (C) MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL
3. (C) MAINTENANCE,SERVICE BULLETIN/LETTER - NOT FOLLOWED - OTHER MAINTENANCE PERSONNEL
4. (C) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - JAMMED

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. (F) GEAR EXTENSION - NOT POSSIBLE - PILOT IN COMMAND
6. (F) WHEELS UP LANDING - PERFORMED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Commercial	Age:	51, Male
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	May 21, 1984
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	2428 hours (Total, all aircraft), 664 hours (Total, this make and model), 2350 hours (Pilot In Command, all aircraft), 62 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N4886T
Model/Series:	PA-34-200 PA-34-200	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	34-7250164
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	June 15, 1984 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:	20 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	3951 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-360-C1E6
Registered Owner:	CALYPSO EQUIPMENT, INC.	Rated Power:	200 Horsepower
Operator:		Operating Certificate(s) Held:	
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:	HKY ,1189 ft msl	Distance from Accident Site:	
Observation Time:	13:55 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 3000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	27°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ASHEVILLE , NC (AVL)	Type of Flight Plan Filed:	None
Destination:	BANNER ELK , NC (5A7)	Type of Clearance:	
Departure Time:	00:00 Local	Type of Airspace:	Class D;Class E

Airport Information

Airport:	HICKORY HKY	Runway Surface Type:	Grass/turf
Airport Elevation:	1189 ft msl	Runway Surface Condition:	
Runway Used:	19	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): Drake, John

Additional Participating Persons: CHARLES J GRAY; CHARLOTTE , NC

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=6491>

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](#).