



Aviation Investigation Final Report

Location:	ANCHORAGE, Alaska	Accident Number:	ANC83FA092
Date & Time:	June 6, 1983, 16:45 Local	Registration:	N6140C
Aircraft:	BELL B47G-2	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

THE HELICOPTER EXPERIENCED A TAIL ROTOR STRIKE DURING A HARD LANDING WITH A DOOR OPEN. ACCORDING TO THE STUDENT PILOT WHO IS A COMMERCIAL PILOT WORKING ON AN ADD-ON HELICOPTER RATING, THE LEFT COCKPIT DOOR UNLATCHED AND PARTIALLY OPENED ON THE DOWNWIND LEG FOR TOUCH-AND-GO PRACTICE LANDING. SHE CONTINUED THE PATTERN AND FINAL APPROACH WITH THE DOOR UNLATCHED WITHOUT FURTHER INCIDENT. SHE EXPECTED THE DOOR TO FULLY OPEN JUST PRIOR TO TOUCHDOWN WHICH IT DID. AS THE DOOR OPENED SHE APPLIED AFT CYCLIC AND FELT THE SKIDS TOUCH DOWN HARDER THAN NORMAL. THE HELICOPTER SLID FORWARD A SHORTDISTANCE WHILE REMAINING ALIGNED WITH THE RUNWAY. WHEN THE ACFT STOPPED THE PILOT LOOKED OUT AND NOTICED THE TAIL ROTOR HAD SEPARATED FROM THE HELICOPTER. INSPECTION OF THE DOOR LATCH SHOWED A WORN LATCH ASSEMBLY WHICH WAS DIFFICULT TO CLOSE PROPERLY. INSPECTION OF THE RUNWAY SURFACE REVEALED A TAILROTOR/GUARD STRIKE PRIOR TO ACFTS MAIN SKIDS TOUCHING THE GROUND.

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 - VFR PATTERN - DOWNWIND

Findings

1. (F) DOOR, EXTERIOR CREW - WORN
2. (F) MAINTENANCE - INADEQUATE - COMPANY MAINTENANCE PERSONNEL
3. (F) DOOR, EXTERIOR CREW - OPEN

Occurrence #2: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (F) POWER ON LANDING - PERFORMED - PILOT IN COMMAND
5. (C) AIRSPEED - MISJUDGED - PILOT IN COMMAND
6. (C) ALTITUDE - MISJUDGED - PILOT IN COMMAND

Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	45,Female
Airplane Rating(s):	Single-engine land; Single-engine sea	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:	December 22, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	516 hours (Total, all aircraft), 32 hours (Total, this make and model), 345 hours (Pilot In Command, all aircraft), 44 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N6140C
Model/Series:	B47G-2 B47G-2	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	415-31
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	May 10, 1983 100 hour	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	46 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	7870 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	VO-435-A1B
Registered Owner:	WILBURS, INC.	Rated Power:	200 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
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:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	50 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ANCHORAGE , AK (MRI)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Airport advisory area

Airport Information

Airport:	CAMPBELL AIRSTRIP CSR	Runway Surface Type:	Dirt
Airport Elevation:	286 ft msl	Runway Surface Condition:	Dry
Runway Used:	2	IFR Approach:	None
Runway Length/Width:	5000 ft / 150 ft	VFR Approach/Landing:	Touch and go

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:	61.21944,-149.849243(est)

Administrative Information

Investigator In Charge (IIC): Kobelnyk, George

Additional Participating Persons:

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=4027>

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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](#).