



Aviation Investigation Final Report

Location:	HAINES, Alaska	Accident Number:	SEA88LA127
Date & Time:	July 13, 1988, 09:10 Local	Registration:	N8620C
Aircraft:	ENSTROM F-28F	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT PURCHASED THE HELICOPTER WITH AN UNDOCUMENTED MODIFICATION DESIGNED TO RESTRAIN THE COLLECTIVE. REPORTEDLY, HERECEIVED NO GUIDANCE REGARDING THE USE OF THE COLLECTIVE HOLD-DOWN DEVICE. ACCORDING TO THE AIRCRAFT MANUFACTURER THERE EXISTED NO ENSTROM APPROVED COLLECTIVE HOLD-DOWN DEVICES OTHER THAN THE INSTALLED FRICTION LOCK. AFTER ENGINE START THE PILOT USED TWO HANDS TO RELEASE THE COLLECTIVE FRICTION. THE ENSTROM F28 'BEFORE TAKEOFF' CHECKLIST WARNS PILOTS TO 'KEEP HAND ON COLLECTIVE AND MAINTAIN DOWN POSITION WHEN (COLLECTIVE) LOCK IS DISENGAGED', AFTER RELEASING THE LOCK THE PILOT SAID THE COLLECTIVE SPRUNG TO THE FULL UP POSITION. THE AIRCRAFT ROLLED TO THE LEFT ABOUT ITS LONGITUDINAL AXIS. THE PILOT STATED THAT HE RELIED ON THE MODIFICATION, A COLLECTIVE HOLD-DOWN CHAIN, TO KEEP THE COLLECTIVE SECURE.

Probable Cause and Findings

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

Findings

Occurrence #1: ROLL OVER
Phase of Operation: STANDING - IDLING ROTORS

Findings

1. (F) ROTORCRAFT FLIGHT CONTROL, COLLECTIVE CONTROL - INCORRECT
2. (F) MAINTENANCE, MODIFICATION - NOT UNDERSTOOD - PILOT IN COMMAND
3. (C) COLLECTIVE - INATTENTIVE - PILOT IN COMMAND
4. (C) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Airline transport	Age:	69, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	February 22, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	30000 hours (Total, all aircraft), 97 hours (Total, this make and model), 30000 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ENSTROM	Registration:	N8620C
Model/Series:	F-28F F-28F	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	706
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	January 20, 1988 Annual	Certified Max Gross Wt.:	1950 lbs
Time Since Last Inspection:	23 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	415 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	HTIO-360-F1AD
Registered Owner:	LAYTON A BENNETT	Rated Power:	225 Horsepower
Operator:	L.A.B. FLYING SERVICE	Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	LABA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HNS	Distance from Accident Site:	
Observation Time:	08:45 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	25 miles
Lowest Ceiling:	Overcast / 3500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	12°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	VFR
Destination:	JUNEAU , AK (JNU)	Type of Clearance:	None
Departure Time:	09:10 Local	Type of Airspace:	

Airport Information

Airport:	HAINES AIRPORT HNS	Runway Surface Type:	
Airport Elevation:	4 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

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:	59.160568,-135.859359(est)

Administrative Information

Investigator In Charge (IIC):	Mccreary, Steven
Additional Participating Persons:	ROBERT KOLVIG; JUNEAU , AK
Original Publish Date:	June 9, 1989
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=40843

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