



Aviation Investigation Final Report

Location:	NEW SMYRNA BCH, Florida	Accident Number:	MIA93LA032
Date & Time:	December 21, 1992, 14:30 Local	Registration:	N38767
Aircraft:	HILLER UH-12C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

THE COMMERCIAL PILOT/FLIGHT INSTRUCTOR (CFI) WAS DEMONSTRATING AN AUTOROTATIVE LANDING TO A COMMERCIAL PILOT WHO WAS RECEIVING FLIGHT INSTRUCTION. THE CFI INITIATED THE SIMULATED EMERGENCY WHILE ON BASE LEG. AT ABOUT 75 FEET AGL, THE CFI CONDUCTED A DECELERATION AND APPLIED COLLECTIVE PITCH AT ABOUT 10 FEET AGL, WITHOUT LEVELING THE HELICOPTER WITH THE CYCLIC CONTROL STICK. THE STINGER, AND TAILROTOR BLADES COLLIDED WITH THE GROUND AND SEPARATED FROM THE HELICOPTER ALONG WITH THE TAILROTOR GEAR BOX. THE HELICOPTER SLID TO THE RIGHT AND CAME TO A COMPLETE STOP ON THE SKIDS IN THE GRASS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT-IN-COMMAND'S IMPROPER APPLICATION OF CYCLIC AND COLLECTIVE PITCH CONTROL DURING AN AUTOROTATIVE LANDING.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

- Findings
1. EMERGENCY PROCEDURE - INITIATED - PILOT IN COMMAND(CFI)

2. AUTOROTATION - SIMULATED - PILOT IN COMMAND(CFI)
3. (C) FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND(CFI)

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	22, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	September 3, 1992
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	666 hours (Total, all aircraft), 40 hours (Total, this make and model), 418 hours (Pilot In Command, all aircraft), 46 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	Registration:	N38767
Model/Series:	UH-12C UH-12C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1037
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	November 19, 1992 Annual	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	20 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6874 Hrs	Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	6V4-200-C33
Registered Owner:	VINTAGE PROPS & JETS INC.	Rated Power:	200 Horsepower
Operator:	VINTAGE PROPS & JETS INC.	Operating Certificate(s) Held:	None
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	
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	26°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(34J)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	12:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	NEW SMYRNA BEACH MUNI 34J	Runway Surface Type:	Grass/turf
Airport Elevation:	12 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	29.019998,-80.919921(est)

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol
Additional Participating Persons:	BEVERLY M MORTON; ORLANDO , FL
Original Publish Date:	September 14, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=33205

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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](#).